DOCUMENT RESUME

ED 146 409 08 CE 013 401

TITLE Validation of the Competencies Needed by School Personnel to Implement Career Education. Phase II of a Professional Development Study for Massachusetts, Volume II.

INSTITUTION Boston Univ., Mass. School of Education.

SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.; Massachusetts State Dept. of Education, Boston. Div. of Occupational Education.

PUB DATE Sep 77

NOTE 136p.; For related documents see ED 137 570, CE 013 400-402, and CE 013 844

EDRS PRICE MF-$0.83 HC-$7.35 Plus Postage.

DESCRIPTORS Administrative Personnel; *Career Education; Coordinators; *Educational Needs; Educational Research; Elementary Secondary Education; *Job Skills; Needs Assessment; *Performance Based Teacher Education; Post Secondary Education; Questionnaires; Reliability; Secondary School Counselors; *Surveys; Teaching Skills; *Validity; Vocational Education; *Vocational Education Teachers

IDENTIFIERS Massachusetts

ABSTRACT

This is the second of four volumes reporting phase 2 of a two-phase project to examine the competency-based vocational teacher education movement and analyze the current state of the art (phase 1), and to assess the implications for preservice, inservice, and leadership level professional development programs in career and occupational education in Massachusetts (phase 2). This volume describes a state-wide needs assessment for occupational education teachers, counselors, coordinators, and administrators in Massachusetts, through a survey sent to personnel in both comprehensive and regional vocational-technical schools. Section 1 presents the competencies as initially developed, and then ranked according to their importance scores. Section 2 presents importance scores for the following six domains: curriculum development, career development, staff development, philosophy, occupational information, and community-related activities. Section 3 presents scores of a variable which measured the difference between importance and frequency. Section 4 presents the result of a discriminant analysis conducted for competencies common to all personnel groups and for domains regarding both the importance and difference variables. The researchers concluded that the competencies are useful, important, and needed for the implementation of career education programs; that career development is the most highly valued component of career education across all groups; and that occupational information is the least valued ingredient. (TA)

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ED146409

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VALIDATION OF THE COMPETENCIES NEEDED BY SCHOOL PERSONNEL TO IMPLEMENT CAREER EDUCATION

VOLUME II
Phase II

PROFESSIONAL DEVELOPMENT STUDY FOR MASSACHUSETTS

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September, 1977

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CE 013 401

FUNDED THROUGH FEDERAL LAW

P.L. 90-576

as amended by

P.L. 92-318

PREFACE

This series of reports completes Phase II of a two phase project undertaken by the Department of Business and Career Education, School of Education, Boston University pursuant to a contract with the Office of Professional Development, Division of Occupational Education, Massachusetts Department of Education. This project was funded through Federal Law 90-576, as amended by P.L. 92-318. The duration of the Phase II contract was January 1, 1977 through September 30, 1977.

The first phase of this project was conducted from March, 1976 through September, 1976. The purpose of Phase I was to conduct a "state of the art" research study of competency-based teacher education for vocational education at the teaching, middle management, and administrative levels. Also included were the competencies needed by educational personnel at various levels to implement career education in comprehensive school systems. The final report of that phase was published in January, 1977, and is entitled: Analysis and Synthesis of Competencies Needed by Vocational and Career Educators: Phase I of a Professional Development Study for Massachusetts. This report contains detailed competency statements for all personnel described.

The second phase of this project was conducted with

three major objectives, stated as follows:

1. To conduct validation of the competencies developed in Phase I of the project. Through the use of a consensus model, the specific validity and applicability of these competencies for Massachusetts was assessed.

2. To conduct a state-wide needs assessment for occupational education personnel in Massachusetts. This was accomplished through a survey sent to personnel in both comprehensive and regional vocational-technical schools. The survey sought to identify both areas of personnel need (manpower need projections) and the types of professional development most desired.

3. To conduct a national survey of the certification requirements and professional development activities for vocational education within State Departments of Education throughout the United States.

The activities and goals established for Phase II of this project have now been completed. Since they are quite varied, and their results will be used by different groups, they have been published as four separate reports. The titles of these reports are as follows:

1. Validation of the Competencies Needed by Vocational Education Teachers, Middle Managers, and Administrators. Phase II of a Professional Development Study for Massachusetts, Volume I.

2. Validation of the Competencies Needed by School Personnel to Implement Career Education. Phase II of a Professional Development Study for Massachusetts, Volume II.

3. An Analysis of National Certification Requirements and Professional Development Standards for Vocational Education Personnel. Phase II of a Professional Development Study for Massachusetts, Volume III.

4. An Analysis of Current and Projected Personnel and Professional Development Needs in Occupational Education in Massachusetts Public Schools. Phase II of a Professional Development Study for Massachusetts, Volume IV.

The researchers extend appreciation and acknowledgement to a number of individuals and agencies for their efforts on behalf of this project. The Office of Professional Development, Division of Occupational Education, Massachusetts State Department of Education is recognized for its cooperation in achieving the goals of this study. The Office of the Dean, School of Education, Boston University, and the Department of Business and Career Education are acknowledged for their support in completing the tasks related to this project. Special appreciation is owed to Associate Deans Paul B. Warren and Barry Weiss.

The many educators both within Massachusetts and throughout the United States who willingly gave of their time and participated in some phase of this project are owed

a debt of gratitude. These include occupational and vocational educators within Massachusetts; career educators throughout the United States; and professional development personnel in the Vocational Education Divisions of State Departments of Education throughout the country.

A number of individuals provided key consulting roles in the accomplishments of the tasks related to this project. These individuals include Dr. David E. Kapel, Dr. David C. Gardner, Dr. Guy Tardanico, Mr. James C. Carifio, Mr. Robert White, and Mrs. Joyce Malyn-Smith. The authors acknowledge their significant contributions to this effort.

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I. BACKGROUND

In March, 1976, the Division of Occupational Education, Massachusetts State Department of Education, contracted with the Department of Business and Career Education at Boston University to conduct a series of studies related to professional development for career and vocational education. The first phase (Phase I) of this project included an analysis and synthesis of the competencies needed for vocational and career educators (Resnick and Carmody, 1977). This report was published in January, 1977.

Volume I of the final report for Phase II of this project (published in September, 1977) includes the procedures and results of the validation of the Phase I competencies for vocational education personnel at the teacher, middle management, and administrative levels. This report (Volume II) describes the procedures and results of the validation of the competencies needed by school personnel at various levels for the implementation of career education programs.

Career education has been described as an educational movement whose implementation is contingent upon the infusion of career education concepts, processes, and programs by all school personnel, at all levels. Consequently, career education requires extensive staff development at all levels

to provide individuals with the skills necessary for such infusion. The first step in such a planned staff development program would consequently be the determination of the particular skills, or competencies, required for the implementation of career education.

The implementation of career education for a particular school system should be developed from a needs assessment and data base accurately describing the goals of the school, the current educational program, and the discrepancies between the standards developed from the school goals, and the actual program being practiced. Through such an analysis, programmatic decisions regarding career education may be made. From these programmatic decisions, appropriate professional development programs may be established.

To assist in the implementation and acceleration of this process, this study was designed to establish answers for the following questions.

1. What are the skills, or competencies, needed by school personnel for the implementation of career education?
2. What are the functional groupings, or categories, of these skills?
3. What are the distinctions and differences in levels and types of skills needed by various levels of school personnel for the implementation of career education?

4. How do school personnel at the various levels perceive the importance of these competencies, both on an individual and group basis?
5. What is the difference in profiles, or general perceptions, of school personnel at varied levels regarding the relative importance of these categories of competencies? What are the similarities and differences among these groups?
6. To what extent do these personnel groups perceive discrepancies between what they consider to be important and what they are required to devote their time to in school? That is, what is the measure of dissonance between the perceived importance of tasks and the actual time devoted to these tasks?

From such an analysis, basic decisions and determinations may be made regarding the specific skills, and categories of skills, needed for the implementation of career education. Furthermore, the hierarchical rating of these competencies according to their perceived importance helps to provide a prioritization for professional development programs. Profile differences help to highlight areas of potential disagreement that require more affective consideration to reduce cognitive dissonance. Finally, distinctions

between perceived importance and actual job requirements will help provide a measure of systemic dissatisfaction that should be addressed by each school system.

II. PROCEDURES

The first phase of this analysis was designed to identify those competencies needed to infuse career education into existing educational programs. Current literature in the competency-based teacher education movement was searched, to identify existing analyses. Few studies were found. It is believed that this is a result of both the recency of the movement, and the fact that the body of knowledge surrounding career education remains, to some degree, in developmental flux. Finding few conpetency studies, additional lists were formulated by rewriting the "duties" and "responsibilities" for career educators as stipulated in job descriptions, and reports of funded projects. From these several sources, an initial comprehensive list was developed. Because this initial list of competencies was so long, and because it contained extensive duplication and overlap with semantic variations, the lists were consolidated into one competency list for each personnel category. The personnel categories used included: A) elementary school teacher; B) junior high school teacher; C) senior

high school teacher; D) counselor; E) coordinator; and F) administrator. Within each personnel level, the competencies were then examined to determine whether tendencies toward natural groupings, or clusters, of functions existed. Where natural clustering seemed evident, competencies were separated and the domain labeled. A theoretical construct for six categories, or domains, common to all personnel levels was thus established. The six clusters, or domains, are: A) curriculum development; B) community-related activities; C) staff development; D) occupational information; E) career development; and F) philosophy.

A design was then constructed for comparing the competencies for one group to the competencies in the same cluster or domain, at other personnel levels. The basis for a group comparison, despite individual differences in competency statements for each personnel level, is the fact that the competencies grouped naturally, from two different dimensions. Prior to assignment to personnel level, all the competencies were grouped together in one central pool. The categories or six domains were formed from this central pool. Competencies were then dissaggregated according to the appropriate personnel level. After this process was completed, competencies and their domain placement were reassessed separately for each personnel level to assure

their continuing face validity. Because all competencies came initially from a central pool for that domain, the decision was made to compare the competencies for a group (e.g. teachers) in a given domain (e.g. career development) to the competencies of a second group (e.g. counselors) under the same domain (career development).

Some overlap of specific competencies across personnel levels was maintained during the process of dissaggregating the competencies into the separate personnel levels. Some competencies appeared on all competency lists for all levels of personnel. For example, Item 58 in the Staff Development Domain appeared on each list. This read: "Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community." Clearly, a competency statement as generic as this would have applicability at all personnel levels. In cases where a skill was found to be generic, but the application varied from level to level, the wording of that competency was modified for each level. For example, under the general heading: "Develop a program within the community to improve Career Education," the Administrators responded to: "Provide a liaison between student, teacher, parents, and community." The Counselors responded to: "Serve as a liaison between the school and the business-industry-labor community and

parent organizations." Coordinators responded to: "Establish and maintain working relationships with local business, industry and labor as well as community personnel in developing and improving the Career Education program." This item appeared as number 91 in the Community-Related Domain. Other competency statements were unique to one personnel level.

After a search of the literature was conducted and the initial competency lists developed and categorized according to personnel level and domain, a design was then developed to validate the content (importance) of these competencies through the judgement of the field. The competencies developed from contemporary literature were assessed against what current practitioners indicate their actual responsibilities to be in their everyday work. This validation process measured the content of the competency statements against their appropriateness or inappropriateness as considered by the "experts."

An "expert practitioner" was defined as any professional currently implementing career education for at least one year. To obtain a national sampling, the Commissioner's Conference on Career Education, held in Houston, Texas in November, 1976, was chosen as the site for the survey. The project was sponsored also by the National Association for

Career Education (NACE) which provided the use of their booth on the conference floor for the administration of the survey instrument. The instrument requested particular demographic data in order to: A) describe the nature of the "expert" practitioners in general; and B) determine whether any particular demographic variables influenced the data. Two distinct areas were rated by each expert for each competency statement: The "Importance" of each competency and the "Frequency" of its performance by that person. The "Importance" rating score was used to establish whether the competency was of significant enough concern to be included in the final competency list. The "Frequency" rating was used to determine how extensively that competency is performed. Both of these factors affect the future planning of staff development programs. In addition, the relationships of these responses to each other for any particular competency is a further indication of the measure of dissonance in the system regarding the implementation of that competency. If a competency were determined to be very important but performed very infrequently, that skill would require particular attention. Items considered to be of high importance and low frequency would indicate a frustration in that important considerations were being ignored. Conversely, items rated low in importance but high in frequency would indicate

time and attention being directed to relatively insignificant issues.

Individuals were chosen on a random basis from the central conference exhibitors hall during the course of the three conference days. Participants were screened at the NACE booth to ensure they first met the criterion of working in career education for at least one year. The operational definition of "expert practitioner" was applied not only on the basis that the individual had been working in on-going career education programs for at least one year, but was sufficiently knowledgeable and committed to the field to learn about and attend a Commissioner's National Conference. Participants were then asked if they would participate in the study by completing the questionnaire. After receiving an affirmative response, their specific job titles were requested. These individuals were then given the instrument appropriate to their professional level. If there was a question regarding which instrument should be completed, instruments were assigned according to specific job related functions. Administrators were defined as those holding fiscal responsibility for their career education programs; the responsibility for hiring and firing personnel (with whatever school board approval was necessary); and overall program implementation responsibilities. Coordinators were

defined as those individuals responsible for the day-to-day management of a program. These persons might or might not have teaching responsibilities. They must, however, provide programmatic assistance for teachers and offer community and curricular support. Classroom teachers were assigned the teacher questionnaire according to the level at which they were most directly involved in their career education program. Guidance personnel were assigned counselors instruments. See Appendix A for a sample questionnaire.

Tables 1 through 6 contain lists of all the competencies included on the questionnaires, separated according to personnel groups and domains.

III. ANALYSIS OF THE DATA

The questionnaires were originally intended to survey the opinions of three groups of teachers (Secondary, Junior High and Elementary), as well as Administrators, Coordinators and Counselors. Very few teachers, however, were available at the Conference for sampling. Consequently, all three groups of teachers were combined into one group with a total N of 21. It is believed that the low number of teacher participants at the conference was due to the fact that teachers traditionally neither have the finances nor the opportunity to be released from classroom commitments to

(narrative continued on page 44)

TABLE 1

CAREER EDUCATION COMPETENCIES NEEDED BY ELEMENTARY SCHOOL TEACHERS

Curriculum Development

1. Assist in writing general career education program objectives.

2. Write specific career education performance objectives for curriculum units.

3. Identify, evaluate and use appropriate commercial materials designed to help pupils perceive the career implications of the subject matter taught.

4. Review and evaluate career education curricula designed and developed by other schools.

5. Develop teacher-produced materials designed to help pupils perceive the career implications of the subject matter taught.

6. Design and develop facility modifications to optimize career learning environments such as career corners, activity centers, bulletin boards etc.

7. Assist in the development and procurement of materials for a school-wide career resource center.

8. Infuse "hands-on" (action-oriented) experiences in the curriculum to relate academic subject learnings to the world of work.

TABLE 1 (cont.)

9. Engage in interdisciplinary experiences integrating academic learnings to increase career awareness and explore basic skills.

10. Integrate academic and occupational information in the curriculum through activity centers and/or units of instruction.

11. Work with guidance staff to implement and improve the career awareness and/or exploration program.

12. Engage in classroom-oriented research to validate and measure the effectiveness of the career education activities.

Career Development

1. Help students develop positive attitudes toward themselves, others, work and those who work to build personally meaningful sets of work values.

2. Provide student awareness experiences stressing present capabilities and interests.

3. Help students develop self-confidence in their ability to fulfill task responsibilities and improve self-esteem.

4. Help students with personal and social problems that hinder self-awareness.

TABLE 1 (cont)

5. Relate the value of basic skills acquisition as a necessary foundation for future occupations.

6. Identify and use appropriate measuring devices for students to use in assessing their interests, attitudes and aptitudes relating to career decisions.

7. Develop experiences which will avoid occupational stereotypes including glamorous occupations and sex-role stereotypes.

Occupational Information

1. Identify technical competencies and general skills needed for entry into occupations.

2. Relate what students learn in a particular subject area to future education and occupational alternatives, work and living.

3. Direct students in obtaining information on manpower from the local, state employment services.

4. Provide library and research skills for obtaining career, occupational and educational information from such centralized sources as the DOT and through specific methods such as writing letters to employers.

TABLE 1 (cont)

Philosophy

1. Explain to students et al the career education program.

2. Describe the total career education program, state the goals within your school district and identify your role within the total plan.

3. Foster a climate of cooperation among the faculty to provide broader experiences for the students.

Staff Development

1. Become engaged in experiences which will familiarize yourself with the implications of your subject matter to career education.

2. Participate in career education in-service training.

3. Expand your world of work experiences to promote a broader experiential base for teachers in implementing career education.

4. Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.

Community Related Activities

1. Conduct career-oriented field trips.

TABLE 1 (cont)

2. Integrate life experiences of teachers, students, parents and resource people in the classroom instruction to provide new models of behavior and work roles.

3. Involve parents in students career development.

4. Identify and utilize resources and/or services available from the community for enriching the career awareness and/or exploration program.

TABLE 2

CAREER EDUCATION COMPETENCIES NEEDED BY JUNIOR HIGH SCHOOL TEACHERS

Curriculum Development

1. Assist in writing general career education program objectives.

2. Write specific career education performance objectives for curriculum units.

3. Identify, evaluate and use appropriate commercial materials designed to help students perceive the career implications of subject matter taught.

4. Develop teacher-produced materials designed to help pupils perceive the career implications of the subject matter taught.

5. Review and evaluate career education curricula designed and developed by other school districts.

6. Evaluate students products and work according to occupational performance standards.

7. Design and develop facility modifications to optimize career learning environments such as resource centers, exploratory labs, career centers in classrooms, etc.

8. Integrate academic and occupational education relationships into the curriculum through activity centers and/or units of instruction.

TABLE 2 (cont)

9. Infuse into the curriculum experiences in analyzing the tasks and requirements of occupations (occupational clusters) of special interest to students.

10. Provide broad exploratory, concrete, action-oriented experiences related to the world of work.

11. Infuse into the curriculum experiences exposing students to the organization of the world of work in job clusters or families.

12. Infuse experiences using role models (alumni, siblings, peers, vocational school students, adult workers) to assist in career exploration.

13. Infuse into the curriculum experiences directing students in the use and retrieval of career information from school-wide career-oriented resources (library, counselor).

14. Work with guidance and counseling staff to implement and improve the awareness and/or exploration program.

15. Provide separate career exploratory courses/programs representing all clusters for all students in the school.

Career Development

1. Help students develop job-seeking, job-getting and job-keeping skills.

TABLE 2 (cont)

2. Help students acquire decision-making and problem solving skills.

3. Relate what students learn to future education, occupational alternatives, work and living.

4. Help students develop positive attitudes toward themselves, others, work and those who work to build personally meaningful sets of work values.

5. Provide students with experiences illustrating the interdependence of occupations and how all work contributes to the effective functioning and well-being of society.

6. Direct students in analyzing how social interactions differ among various careers.

7. Direct students in identifying occupations (occupational clusters) that are compatible with their own interests and abilities.

8. Identify and use relevant tests such as the Strong Vocational Interest Battery, Kuder, and Holland Self-Directed Search as well as relevant career guidance terminology.

9. Develop experiences which will avoid occupational stereotypes including glamorous occupations and sex-role stereotypes.

TABLE 2 (cont)

Occupational Information

1. Identify technical competencies and general skills needed for entry into occupations and describe occupational performance standards.

2. Collect occupational data from employers to identify community needs.

3. Identify employment requirements, procedures, and opportunities.

4. Provide library and research skills for obtaining career, occupational and educational information from such centralized sources as the DOT and through specific methods such as writing letters to employers.

Philosophy

1. Explain the career education program to the students et al.

2. Describe the total career education program, state the goals of your school district and identify your role in this program.

3. Foster a climate of cooperation among disciplines to provide broader experiences for students.

Staff Development

1. Participate in career education in-service training.

TABLE 2 (cont)

2. Become engaged in experiences which will familiarize you with the implications of your subject matter to career education.

3. Expand your personal world of work experiences to promote a broader experiential base for teachers in implementing career education.

4. Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.

Community Related Activities

1. Identify, interact with, and expeditiously use community and human resources and services available to enrich the career awareness and/or exploration program.

2. Establish and maintain working relationships with local business, industrial and labor personnel in developing and improving career awareness and/or exploration programs.

3. Provide field-based opportunities for students to acquire experiences in business and industry to expand their career awareness and exploration activities.

4. Bring career representatives into the school on a systematic basis to enrich the career awareness and exploration programs.

TABLE 2 (cont)

5. Utilize role models (alumni, siblings, peers, vocational school students, adult workers) to assist in exploration.

6. Help parents understand and encourage the career development process as it relates to their children by actively involving them in career education planning, activities and events.

7. Publicize and promote career education activities within the school and community.

TABLE 3

CAREER EDUCATION COMPETENCIES NEEDED BY SENIOR HIGH SCHOOL TEACHERS

Curriculum Development

1. Assist in writing general career education program objectives.

2. Write specific career education performance objectives for curriculum units.

3. Identify, evaluate and use appropriate commercial materials designed to help pupils perceive the career implications of the subject matter.

4. Review and evaluate career education curricula designed and developed by other schools.

5. Develop teacher-produced materials designed to help pupils perceive the career implications of the subject matter taught.

6. Integrate into the curriculum skills and experiences to provide students with specific competencies at a level that will enable them to gain entry into the occupational society.

7. Evaluate student's products and work according to occupational performance standards.

8. Design and develop facility modifications to optimize career learning environments.

TABLE 3 (cont)

9. Infuse into the curriculum experience in analysing the tasks and requirements of occupations of special interest to the students.

10. Integrate academic and vocational skill relationships into the curriculum through special projects and/or units of instruction (eg. school newspapers, student-run school stores).

11. Work with guidance and counseling staff to implement and improve the career awareness and/or exploration program.

12. Provide for career preparation experiences sufficient to enable the individual to acquire skills necessary to succeed at his/her chosen occupation, within his/her capabilities.

Career Development

1. Identify and utilize relevant tests such as the Strong Vocational Interest Battery, Kuder, and Holland Self-Directed Search as well as relevant career guidance terminology.

2. Counsel students concerning career goals, educational requirements for employment in these areas, availability of jobs, work conditions, etc.

TABLE 3 (cont)

3. Prepare students for job interviews, provide group guidance sessions for job-hunting and job-keeping skills.

4. Help students develop positive attitudes toward themselves, others, work and those who work.

5. Reinforce steps in decision-making and planning, and the importance of students being responsible for their own decisions.

6. Help students determine career options appropriate to their levels of career maturity and career goals.

7. Provide for the easy transition of students from one type of school environment to another, and from school to further education or employment.

8. Provide experiences to help students increase their depth of understanding of personal capabilities, interests and possible limitations.

9. Provide opportunities for the individual to experience work first-hand in a non-threatening environment.

Occupational Information

1. Identify technical competencies and general skills for entry into occupations and describe occupational performance standards.

TABLE 3 (cont)

2. Gather and disseminate information concerning work permit procedures, Child Labor Laws, provisions of the Industrial Welfare Commission Orders and the Fair Labor Standards Act and other statutes and regulations governing employment of students.

3. Utilize and disseminate knowledge of current issues in the world of work, education, rehabilitation, and community service to enrich the students' career preparation activities.

4. Present information to students on occupational opportunities.

5. Coordinate student placement services for work or advanced education as the student leaves the formal school environment.

6. Develop experiences that will avoid occupational stereotypes and expose students to atypical and non glamour occupations.

Philosophy

1. Explain the career education program to students et al.

2. Describe the total career education program, state the goals of your school district, and identify your role in this program.

TABLE 3 (cont)

3. Foster a climate of cooperation among disciplines to provide broader career education experiences for the students.

Staff Development

1. Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.

2. Participate in career education in-service training.

3. Expand your personal world of work experiences to promote a broader experiential base in implementing career education.

4. Become engaged in experiences which will familiarize yourself with the implications of your subject matter to career education.

Community-Related Activities

1. Identify and utilize resources and/or services available from the community for enriching the career preparation program.

2. Establish and maintain working relationships with local business, industry and labor personnel in developing the career preparation program.

3. Conduct career-oriented field trips.

TABLE 3 (cont)

4. Provide experiences for students to work in business and industry to gain first-hand knowledge of the world of work (eg. cooperative education, internships).

5. Monitor student field-based activities through on-site visitations.

6. Help parents understand and encourage the career development process as it relates to their children by actively involving them in career education planning, activities and events.

7. Publicize and promote career education activities within the school and community.

TABLE 4

CAREER EDUCATION COMPETENCIES
NEEDED BY COUNSELORS

Curriculum Development

1. Assist in writing general career education program objectives.

2. Write specific career education performance objectives for curriculum units.

3. Identify, evaluate and use appropriate commercial materials designed to help students perceive the career implications of the subject matter.

4. Develop teacher-produced materials designed to help pupils perceive the career implications of the subject matter taught.

5. Review and evaluate career education curricula designed and developed by other schools.

6. Provide leadership in career testing.

7. Identify the occupational composition of the community and plan and implement a program of school-community relations.

8. Integrate academic and vocational skill relationships into the curriculum through activities center, units of instruction and/or programs of career guidance.

9. Infuse affective career education concepts into the curriculum.

TABLE 4 (cont)

10. Develop and design facility modifications to optimize career learning environments such as career resource centers.

11. Maintain a library of up-to-date occupational information and placement opportunities (both educational and occupational).

Career Development

1. Identify and use appropriate measuring devices for students to use in assessing their interests, attitudes, and aptitudes as they relate to future career decisions.

2. Help pupils develop, clarify and assimilate personally meaningful sets of work values.

3. Provide experiences to broaden the students' range of career and self-awareness.

4. Help students in the total career development process, including the making and implementation of career decisions.

5. Help students acquire job-seeking, job-getting and keeping skills within a career guidance program.

6. Counsel students concerning career goals, education requirements for employment in these areas, availability of jobs, work conditions, etc.

TABLE 4 (cont)

7. Develop experiences which will avoid occupational stereotypes and expose students to atypical and non-glamour occupations.

Occupational Information

1. Participate in the job placement process.

2. Set up and maintain an active file of student applications and/or exploratory job stations.

3. Conduct data-gathering assessments (surveys, etc) for such information as manpower data, placement opportunities, student success, student satisfaction, etc.

4. Help the classroom teachers implement career education in the classroom.

5. Provide teachers with instruction in the use of media and materials designed to be used in career education including self-directed exploratory programs.

6. Gather and disseminate information concerning career education programs, events, new materials, workshops, etc. to other school staff.

7. Demonstrate guidance techniques such as constructing and using rating scales, using role playing, constructing job ladders and lattices, and interviewing techniques.

8. Research and disseminate information concerning current issues in the world of work, education, rehabilitation and community service.

TABLE 4 (cont)

9. Identify technical competencies and basic skills needed for entry into occupations and describe occupational standards of performance.

10. Acquaint students with career education information areas located within the school and assist them in locating and using occupational education materials and information.

11. Develop a career education resource center including occupational and education materials, resource persons, manpower data assessment instruments, etc.

Philosophy

1. Explain the career education program to students, et al.

2. Describe the total career education program, stating the goals within your school district, identifying your role and stating goals of the state department of education.

Staff Development

1. Plan and conduct career education in-service workshops.

2. Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.

TABLE 4 (cont)

3. Expand your personal world of work experiences to promote a broader experiential base for teachers in implementing career education.

4. Participate in career education in-service training.

Community-Related Activities

1. Identify, interact with and expeditiously use community and human resource and services to enrich education program.

2. Serve as a liaison between the school and the business-industry-labor, community and parent organizations.

3. Implement career education concepts within the home and family structure.

4. Publicize and promote career education program activities within community and school.

5. Research and compile lists of resource people within the community and school to enrich the career education program.

6. Monitor student field-based activities through on-site visitations.

7. Write and administer questionnaires and conduct interviews for both preparation and follow-up of field trips related to career education.

TABLE 5

CAREER EDUCATION COMPETENCIES
NEEDED BY COORDINATORS

Curriculum Development

1. Coordinate the development of general career education program objectives.

2. Write specific career education performance objectives for curriculum units.

3. Identify, evaluate and provide appropriate commercial materials for use by the teacher designed to help students perceive the career implications of the subject matter taught.

4. Coordinate the development of teacher-produced materials designed to help pupils perceive the career implications of the subject matter taught.

5. Review and evaluate career education curricula designed and developed by other schools.

6. Identify, evaluate and use career education evaluation instruments for courses, program and instructional materials.

Career Development

1. Identify and use appropriate measuring devices for students to use in assessing their interests, attitudes and aptitudes as they relate to future career decisions.

TABLE 5 (cont)

2. Plan and coordinate special programs of instruction to provide career guidance, career experiences, at the awareness, exploration and preparation levels, and career information.

3. Help students develop, clarify and assimilate personally meaningful sets of work values.

4. Help students acquire and reinforce decision-making and planning skills.

5. Provide experiences to broaden each student's range of career awareness.

6. Counsel students concerning career goals, educational requirements for employment in these areas, availability of jobs, work conditions, etc.

7. Develop and coordinate experiences which will avoid occupational stereotypes including glamorous occupations and sex-role stereotypes.

Occupational Information

1. Place students in paid or unpaid work experiences, take job orders, process applications, etc.

2. Set up and maintain an active file of students' applications and/or exploratory job stations.

3. Conduct data-gathering assessments (surveys, etc) for such information as manpower data, placement opportunities, student success, student satisfaction, etc.

TABLE 5 (cont)

4. Help school staff infuse career education into the school program and direct school-wide career education activities.

5. Provide teachers with instruction in the use of media and materials designed to be used in career education, including self-directed exploratory programs.

6. Gather and disseminate information concerning career education programs, events, new materials, workshops, etc. to other school staff.

7. Coordinate and make available the instructional services of the school system to all personnel.

8. Research and disseminate information concerning current issues of the world of work, education, rehabilitation and community services.

9. Gather and disseminate information concerning work permit procedures, child labor laws, provisions of the Industrial Welfare Commission Orders, and the Fair Labor Standards Act and other statutes and regulations governing employment of students.

10. Demonstrate career guidance techniques such as constructing and using rating scales, using role playing, constructing job ladders and lattices and interviewing techniques.

TABLE 5 (cont)

11. Identify the technical competencies and basic skills needed for entry into occupations and describe occupational standards of performance.

12. Acquaint students with the career education information area located within the school and assist them in locating and using occupational education material and information.

13. Develop a career education information service to gather, disseminate, and evaluate occupational information.

Philosophy

1. Explain the career education program to students et al.

2. Foster a climate in which teachers look for ways to cooperate with other disciplines in providing broader experiences for students.

3. Describe the total career education program, stating the goals within your school district, identifying your role and stating goals of the state department of education.

Staff Development

1. Participate in career education in-service training.

TABLE 5 (cont)

2. Set-up and conduct career education in-service professional development workshops for the faculty in your school district.

3. Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.

4. Expand your personal world of work experiences to promote a broader experiential base for teachers in implementing career education.

Community-Related Activities

1. Identify, interact with and expeditiously use community and human resources available to enrich the career education program.

2. Establish and maintain working relationships with local business, industry and labor as well as community personnel in developing and improving the career education program.

3. Call on previous or potential work environments to promote jobs, job stations, potential internships or cooperative work projects.

4. Monitor the progress of field-based students through on-site visitations.

TABLE 5 (cont)

5. Serve as a resource to students, teachers, and counselors for career-related matters and materials.

6. Involve volunteer helpers in the career education process.

7. Help parents understand and encourage the career development process as it relates to their children by involving them in career education plans, activities and events.

8. Publicize and promote career education activities within the school and the community.

9. Develop and maintain a resource file of personnel in the community interested in participating in the career education program. Provide a list of the most appropriate individuals for each teacher to meet his/her objectives.

10. Coordinate all contacts and follow-ups of community personnel.

TABLE 6

CAREER EDUCATION COMPETENCIES
NEEDED BY ADMINISTRATORS

Curriculum Development

1. Establish the curriculum priorities within the school system to meet the overall philosophy and goals of the total career education program.

2. Provide leadership for writing general career education program goals and objectives.

3. Authorize teachers to produce materials designed to help pupils perceive the career implications of the subject matter taught; supervise and evaluate materials developed.

4. Identify and evaluate appropriate commercial materials designed to help students perceive the career implications of the subject matter taught. Purchase and distribute materials to appropriate personnel.

5. Review and evaluate career education curricula designed and developed by other school districts.

6. Research and develop a plan for the implementation and evaluation of a curriculum that integrates career education into the school.

7. Utilize career education accountability models for program evaluation of the total curriculum, delivery system, and personnel.

TABLE 6 (cont)

8. Design and develop facility modifications to optimize career learning environments.

Career Development

1. Coordinate a career development program implementing career development theory from the awareness to preparation stages.

2. Coordinate activities of guidance personnel, teachers and coordinators according to the career education model theories.

3. Design and administer an assessment system for measuring student growth in career maturity.

4. Develop special activities to meet unique needs of the students (eg. interviewing techniques, values clarification, etc).

Occupational Information

1. Set up and maintain an active file of student applications and/or exploratory job stations.

2. Plan and direct implementation of job promotion and supervision techniques for career education school personnel.

3. Establish career education performance standards.

TABLE 6 (cont)

4. Collect occupational data from employers to identify community needs.

5. Organize, establish and evaluate career education instructional resource centers at various instructional levels.

6. Research and disseminate information concerning current issues in the world of work, education, rehabilitation and community services to staff.

7. Gather and disseminate information concerning career programs, new materials, workshops, etc.

Philosophy

1. Be knowledgeable concerning state and district curriculum goals for career education.

2. Explain the career education program to students et al.

3. Describe the total career education program, stating goals to be achieved in the school district, and identifying your role within the program.

4. Recommend and establish school system policies for the career education program.

5. Identify roles of all school personnel, prepare job descriptions and employ personnel as appropriate to implement the career education program.

TABLE 6 (cont)

Staff Development

1. Offer in-service programs designed to provide staff with career education concepts, procedures, and materials.

2. Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.

3. Expand your personal world of work experiences to promote a broader experiential base for teachers in implementing career education.

Community-Related Activities

1. Interact with and expeditiously use community and human resources available for career education.

2. Monitor students in field-based activities through on-site visitations, phone calls or mailings.

3. Establish a cooperative working relationship between the classroom teacher, the guidance counselor and occupational teachers.

4. Provide a liaison between student, teacher, parents, and community.

5. Involve the widest possible community participation in career education policy decision-making and career education activities.

TABLE 6 (cont)

6. Obtain public commitment and cooperation of the Board of Education, teacher organizations, and community organizations for the career education program.

7. Bring together and coordinate the personnel, resources, facilities and activities of the subsystems that exist within the district.

8. Publicize and promote career education activities and programs within the community.

attend national conventions. Consequently, the original six groups were re-formed into the following four groupings for data analysis: A) Teachers; B) Counselors; C) Coordinators; and D) Administrators.

Group Profiles

Profiles of "typical" Administrators, Counselors, Coordinators and Teachers were derived from the demographic data section on the questionnaires. The data used to display these "typical" profiles were based upon the modes, or "highest percentages" on each item relating to this section of the instrument. Modes were used rather than means for two reasons. First, a number of the questions were not numeric. Secondly, in cases where modes were used they were indeed much more frequently cited than any other choice. More detailed presentation of this data is not shown since none of these factors proved significant in predicting responses to any of the items on the questionnaire. The following is a sample of the demographic data section of the questionnaires:

1. What is the scope of the career education program in which you are currently involved?

none	by myself	expanded guidance program	part of occ/vo ed.	K-12	5-9	6-12

9-12	higher ed.	business industry gov't.

2. In what region of the country are you currently employed?

northwest south middle atlantic midwest

southwest west

3. What is your job title?

teacher guidance work/study coop coord career ed. coord. occ.vo coord.

career ed. director occ/vo ed. director asst. principal principal

asst. Suptdent superintendent teacher educator other (please indicate)

4. Your current degree status?

less than BA - BS BA-BS BS+ BA+ MA MEd MEd+ CAGS CAGS+ EdD PhD

5. Year of most recent degree:

prior to 1960 60-64 65-69 70-72 73-76

6. Number of years of teaching experience:

0-2 3-5 6-10 11-15 16-20 20+

7. Number of years experience in business-industry-labor, civil service (full-time equivalent).

0-1 2 3 4 5 6-8 9-12 12+

8. How long have you personally been involved in implementing career education in your school district?

0-1 yrs 2 yrs 3 yrs 4 yrs 5 yrs 6-8 yrs 8+ yrs

The typical Administrator holds the title of Career Education Director. He/she is implementing a K-12 career education program at the district or city level in the Midwest. This individual holds a Master's Degree in Education, plus additional courses. His/her latest degree was acquired between 1973 and 1976. The administrator has had more than twenty years of experience in Education, six-eight years of experience in business, and five years of experience in the implementation of career education programs.

The typical Coordinator is also involved in a K-12 program for a full school district rather than for one particular school. This person is from the Southwest. He/she has completed studies for a Master's degree in Education within three years prior to the Conference and has continued his/her professional development by accumulating additional credit in the field of education. The Career Education Coordinator has had either moderate (3) or extensive (more than 20) years of experience in education, with 0 or 1 year of experience in business. This person typically has been implementing career education for 3 years.

The typical Counselor attending the Conference is involved in the implementation of career education programs in a 9-12 secondary school in the Southwest. This individual holds a Masters degree in Education, plus some additional

courses. The most recent degree was earned typically between 1973 and 1976. The counselor has had five years of experience in the field of education, as well as five years of experience in business, and has completed either 0 or 1 year implementing career education.

The typical teacher implementing career education is involved in a K-12 program in the Southwest. He/she possesses a Master's degree in Education, and also has accumulated additional credits in education. The teacher typically obtained his/her latest degree before 1970, has had 6-10 years of experience in education, 0-1 in business, and 4 years of integrating career education into the curriculum.

The "typical person" attending the Career Education Conference in Houston, therefore, is involved in a K-12 career education program in the Southwest. He/she has earned at least a Master's degree in Education, completed between 1973 and 1976. This implementor has had 6-10 years of experience in education, 0-1 years experience in the business world, and has typically been involved in the implementation of career education programs for 3 years.

Relative Importance of Each Item by Groups

The respondents were asked to rate each competence statement according to two variables: importance, and frequency. Importance is defined as the degree of critically

of that statement for the implementation of the career education program. Frequency defines how often the respondent is required to perform the functions that will achieve that competence.

For the importance variable, the respondents were asked to rate each item according to the following five point scale:

5. Critical
4. Important
3. Somewhat Important
2. Of Little Value
1. Of No Value

Each item was then analyzed to determine the mean score for that item at each personnel level. The researchers had determined that any item receiving a Mean Importance Score of less than 3.0 should not be recommended for staff development programs.

Tables 7 through 10 present the competencies for each personnel level, presented in their rank order. Table 10 presents the data collectively for the three teacher groups. Phrases are used rather than specific competencies since wording varied from level to level. The reader is referred to the item number for cross-referencing purposes to the original data. Also included in these tables are the categorical (domain) codings for each statement and the item number for the statement. Item numbers may be used to cross-

reference statements among the various tables.

Relative Importance of Domains Among Personnel Groups

After reviewing the competencies according to their raw rankings, it was of interest to the researchers to examine the competency importance scores as they related to the six domains. Accordingly, the ten highest ranked competencies for each personnel level were reviewed in terms of their domains. Table 11 presents the number of competencies in the highest ten ranked statements for each personnel group, according to their domains.

As may be noted in the table, the teachers chose seven of their top ten competencies from the Career Development domain. Such a response is not surprising, when considered in light of the teacher's concern with the development of a healthy self-concept for each child, and the influence of developmental theory in school curricula. Indeed, since career development is considered to be an extension of the self-concept, such an assignment by the teachers might have been anticipated.

Coordinators gave the highest number of statements (three apiece) to the areas of staff development and community-related activities. This, too, is not surprising since part of the definition of the coordinators role includes the involvement of the community and the professional

(narrative continued on page 72)

TABLE 7

ADMINISTRATOR CAREER EDUCATION COMPETENCIES
RANK ORDERED BY MEAN IMPORTANCE SCORE

Competency	Rank	Item #	Domain	Mean
Obtain public commitment and cooperation of the board of education, teacher organizations, and community organizations for career education program.	1	104	CO	4.660
Be knowledgeable concerning state and district curriculum goals for career education.	2	66	PH	4.647
Establish the curriculum priorities within the school system to meet the overall philosophy and goals of the total career education program.	3	36	CU	4.627
Offer in-service programs designed to provide staff with career education concepts procedures, and materials.	4	60	SD	4.620
Publicize and promote career education activities and programs within the community.	5	89	CO	4.592
Interact with and expeditiously use community and human resources available for career education.	6	87	CO	4.580
Establish a cooperative working relationship between the classroom teacher, the guidance counselor and occupational teachers.	7	102	CO	4.553

TABLE 7 (cont)

Competency	Rank	Item #	Domain	Mean
Research and develop a plan for the implementation and evaluation of a curriculum that integrates career education into the school.	8	37	CU	4.549
Provide a liaison between student, teacher, parents, and community.	9	91	CO	4.532
Recommend and establish school system policies for the career education program.	10	68	PH	4.500
Involve the widest possible community participation in career education policy decision-making and career education activities.	11	103	CO	4.490
Describe the total career education program, stating goals to be achieved in the school district, and identifying your role within the program.	12	64	PH	4.457
Provide leadership for writing general career education program goals and objectives.	13	14	CU	4.429
Bring together and coordinate the personnel, resources facilities and activities of the subsystems that exist within the district.	14	105	CO	4.370
Coordinate a career development program implementing career development theory from the awareness to preparation stages.	15	78	CD	4.340

TABLE 7 (cont)

Competency	Rank	Item #	Domain	Mean
Identify roles of all school personnel, prepare job descriptions and employ personnel as appropriate to implement the career education program.	16	67	PH	4.313
Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.	17	58	SD	4.300
Explain the career education program to students et al.	18	63	PH	4.220
Develop special activities to meet unique needs of the students (eg. interviewing techniques, values clarification, etc).	19	70	CD	4.200
Coordinate activities of guidance personnel, teachers and coordinators according to the career education model theories.	20	86	CD	4.170
Gather and disseminate information concerning career programs, new materials, workshops, etc.	21	47	OI	4.125
Utilize career education accountability models for program evaluation of the total curriculum, delivery system, and personnel.	22	38	CU	4.125
Collect occupational data from employers to identify community needs.	23	41	OI	4.100

TABLE 7 (cont)

Competency	Rank	Item #	Domain	Mean
Authorize teachers to produce materials designed to help pupils perceive the career implications of the subject matter taught; supervise and evaluate materials developed.	24	13	CD	4.082
Set up and maintain an active file of student applications and/or exploratory job station.	25	45	OI	4.063
Design and administer an assessment system for measuring student growth in career maturity.	26	69	CD	4.061
Establish career education performance standards.	27	57	OI	4.044
Organize, establish and evaluate career education instructional resource centers at various instructional levels.	28	46	OI	4.022
Identify and define the school's role in student placement and coordinate placement service.	29	44	OI	4.000
Research and disseminate information concerning current issues in the world of work, education, rehabilitation and community services to staff.	30	43	OI	3.979
Expand your personal world of work experiences to promote a broader experiential base for teachers in implementing career education.	31	59	SD	3.896

TABLE 7 (cont)

Competency	Rank	Item #	Domain	Mean
Monitor students in field-based activities through on-site visitations, phone calls or mailings.	32	94	CO	3.860
Plan and direct implementation of job promotion and supervision techniques for career education school personnel.	33	56	OI	3.800
Identify and evaluate appropriate commercial materials designed to help students perceive the career implications of the subject matter taught. Purchase and distribute materials to appropriate personnel.	34	11	CU	3.776
Review and evaluate career education curricula designed and developed by other school districts.	35	12	CU	3.647
Design and develop facility modifications to optimize career learning environments.	36	17	CU	3.404

Code for the six domains:

OI - Occupational Information
PH - Philosophy
CU - Curriculum
CO - Community
CD - Career Development
SD - Staff Development

TABLE 8

COORDINATOR CAREER EDUCATION COMPETENCIES
RANK ORDERED BY MEAN IMPORTANCE SCORE

Competency	Rank	Item #	Domain	Mean
Help school staff infuse career education into the school program and direct school-side career education activities.	1	49	OI	4.735
Establish and maintain working relationships with local business, industry and labor as well as community personnel in developing and improving the career education program.	2	91	CO	4.706
Identify, interact with and expeditiously use community and human resources available to enrich the career education program.	3	87	CO	4.697
Describe the total career education program, stating the goals within your school district, identifying your role and stating goals of the state department of education.	4	65	PH	4.697
Participate in career education in-service training.	5	61	SD	4.697
Set-up and conduct career education in-service professional development workshops for the faculty in your school district.	6	60	SD	4.606
Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.	7	58	SD	4.606

TABLE 8 (cont)

Competency	Rank	Item #	Domain	Mean
Plan and coordinate special programs of instruction to provide career guidance, career experiences at the awareness, exploration and preparation levels, and career information.	8	78	CD	4.559
Help students acquire and reinforce decision-making and planning skills.	9	72	CD	4.559
Develop and maintain a resource file of personnel in the community interested in participating in the career education program. Provide a list of the most appropriate individuals for each teacher to meet his/her objectives.	10	93	CO	4.545
Serve as a resource to students, teachers, and counselors for career-related matters, and materials.	11	98	CO	4.529
Acquaint students with the career education information area located within the school and assist them in locating and using occupational education material and information.	12	40	OI	4.515
Help students develop, clarify and assimilate personally meaningful sets of work values.	13	70	CD	4.500
Counsel students concerning career goals, educational requirements for employment in these areas, availability of jobs, work conditions, etc.	14	74	CD	4.485

TABLE 8 (cont)

Competency	Rank	Item #	Domain	Mean
Provide experiences to broaden each student's range of career awareness.	15	73	CD	4.485
Develop a career education information service to gather, disseminate, and evaluate occupational information.	16	46	OI	4.455
Foster a climate in which teachers look for ways to cooperate with other disciplines in providing broader experiences for students.	17	64	PH	4.455
Publicize and promote career education activities within the school and the community.	18	89	CO	4.441
Identify and use appropriate measuring devices for students to use in assessing their interests, attitudes and aptitudes as they relate to future career decisions.	19	69	CD	4.412
Coordinate the development of general career education program objectives.	20	14	CU	4.382
Help parents understand and encourage the career development process as it relates to their children by involving them in career education plans, activities and events.	21	90	CO	4.353
Coordinate the development of teacher-produced materials designed to help pupils perceive the career implication of the subject matter taught.	22	13	CU	4.333

TABLE 8 (cont)

Competency	Rank	Item #	Domain	Mean
Coordinate all contacts and follow-ups of community personnel.	23	100	CO	4.324
Provide teachers with instruction in the use of media and materials designed to be used in career education, including self-directed exploratory programs.	24	50	OI	4.304
Explain the career education program to students, et al.	25	63	PH	4.303
Gather and disseminate information concerning career education programs, events, new materials, workshops, etc. to other school staff.	26	47	OI	4.294
Develop and coordinate experiences which will avoid occupational stereotypes including glamorous occupations and sex-role stereotypes.	27	71	CD	4.294
Identify, evaluate and provide appropriate commercial materials for use by the teacher; designed to help students perceive the career implications of the subject matter taught.	28	11	CU	4.273
Call on previous or potential work environments to promote jobs, job stations, potential internships or cooperative work projects.	29	97	CO	4.176
Coordinate and make available the instructional services of the school system to all personnel.	30	55	OI	4.161

TABLE 8 (cont)

Competency	Rank	Item #	Domain	Mean
Write specific career education performance objectives for curriculum units.	31	15	CU	4.156
Expand your personal world of work experiences to promote a broader experiential base for teachers in implementing career education.	32	59	SD	4.152
Involve volunteer helpers in the career education process.	33	99	CO	4.118
Identify, evaluate and use career education evaluation instruments for courses, program and instructional materials.	34	31	CU	4.091
Research and disseminate information concerning current issues of the world of work, education rehabilitabion and community services.	35	43	OI	4.091
Monitor the progress of field-based students through on-site visitations.	36	94	CO	4.063
Identify the technical competencies and basic skills needed for entry into occupations and describe occupational standards of performance.	37	39	OI	4.061
Review and evaluate career education curricula designed and developed by other schools	38	12	CU	4.059
Place students in paid or unpaid work experiences, take job orders, process applications, etc.	39	44	OI	4.000

TABLE 8 (cont)

Competency	Rank	Item #	Domain	Mean
Conduct data-gathering assessments (surveys, etc.) for such information as manpower data, placement opportunities, student success, student satisfaction, etc.	40	48	OI	3.941
Demonstrate career guidance techniques such as constructing and using rating scales, using role playing, constructing job ladders and lattices and interviewing techniques.	41	51	OI	3.941
Set up and maintain an active file of students' applications and/or exploratory job stations.	42	45	OI	3.912
Gather and disseminate information concerning work permit procedures, child labor laws, provisions of the Industrial Welfare Commission Orders, and the Fair Labor Standards Act and other statutes and regulations governing employment of students.	43	42	OI	3.765

Code for the six domains:

OI - Occupational Information
PH - Philosophy
CU - Curriculum
CO - Community
CD - Career Development
SD - Staff Development

TABLE 9

COUNSELOR CAREER EDUCATION COMPETENCIES
RANK ORDERED BY MEAN IMPORTANCE SCORE

Competency	Rank	Item #	Domain	Mean
Counsel students concerning career goals, education requirements for employment in these areas, availability of jobs, work conditions, etc.	1	74	CD	4.485
Infuse affective career education concepts into the curriculum.	2	34	CU	4.484
Maintain a library of up-to-date occupational information and placement opportunities (both educational and occupational).	3	35	CU	4.424
Participate in career education in-service training.	4	61	SD	4.414
Help pupils develop, clarify and assimilate personally meaningful sets of work values	5	70	CD	4.364
Identify and use appropriate measuring devices for students to use in assessing their interests, attitudes, and aptitudes as they relate to future career decisions.	6	69	CD	4.333
Help students in the total career development process, including the making and implementation of career decisions.	7	72	CD	4.303
Develop a career education resource center including occupational and education materials, resource persons, manpower data, assessment instruments, etc.	8	46	OI	4.290

TABLE 9 (cont)

Competency	Rank	Item #	Domain	Mean
Provide leadership in career testing.	9	32	CU	4.258
Help students acquire job-seeking, job-getting and keeping skills within a career guidance program.	10	75	CD	4.242
Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.	11	58	SD	4.233
Acquaint students with career education information areas located within the school and assist them in locating and using occupational education materials and information.	12	40	OI	4.226
Integrate academic and vocational skill relationships into the curriculum through activities center, units of instruction and/or programs of career guidance.	13	18	CU	4.219
Publicize and promote career education program activities within community and school.	14	89	CO	4.212
Assist in writing general career education program objectives.	15	14	OI	4.194
Help the classroom teachers implement career education in the classroom.	16	49	OI	4.194
Identify, evaluate and use appropriate commercial materials designed to help students perceive the career implications of the subject matter.	17	11	CU	4.188

TABLE 9 (cont)

Competency	Rank	Item #	Domain	Mean
Plan and conduct career education in-service workshops.	18	60	SD	4.172
Explain the career education program to students, etal.	19	63	PH	4.161
Develop experiences which will avoid occupational stereotypes and expose students to atypical and non-glamour occupations.	20	71	CD	4.157
Describe the total career education program, stating the goals within your school district, identifying your role and stating goals of the state department of education.	21	64	PH	4.143
Provide experiences to broaden the students' range of career and self-awareness.	22	73	CD	4.121
Identify, interact with and expeditiously use community and human resources and services to enrich the career education program.	23	87	CO	4.121
Identify the occupational composition of the community and plan and implement a program of school-community relations.	24	33	CU	4.091
Research and compile lists of resource people within the community and school to enrich the career education program.	25	93	CO	4.091

TABLE 9 (cont)

Competency	Rank	Item #	Domain	Mean
Gather and disseminate information concerning career education programs, events, new materials, workshops, etc. to other school staff.	26	47	OI	4.032
Serve as a liaison between the school and the business-industry-labor community and parent organizations.	27	91	CO	4.000
Participate in the job placement process.	28	44	OI	3.906
Develop and design facility modifications to optimize career learning environments such as career resource centers.	29	17	CU	3.903
Write and administer questionnaires and conduct interviews for both preparation and follow-up of field trips related to career education.	30	101	CO	3.900
Provide teachers with instruction in the use of media and materials designed to be used in career education including self-directed exploratory programs.	31	50	OI	3.897
Monitor student field-based activities through on-site visitations.	32	94	CO	3.867
Conduct data-gathering assessments (surveys, etc.) for such information as manpower data, placement opportunities, student success, student satisfaction, etc.	33	48	OI	3.862

TABLE 9 (cont)

Competency	Rank	Item #	Domain	Mean
Demonstrate guidance techniques such as constructing and using rating scales, using role playing constructing job ladders and lattices, and interviewing techniques.	34	51	OI	3.839
Set up and maintain an active file of student applications and/or exploratory job stations.	35	45	OI	3.839
Identify technical competencies and basic skills needed for entry into occupations and describe occupational standards of performance.	36	39	OI	3.806
Expand your personal world of work experiences to promote a broader experiential base for teachers in implementing career education.	37	59	SD	3.806
Implement career education concepts within the home and family structure.	38	90	CO	3.800
Research and disseminate information concerning current issues in the world of work, education, rehabilitation and community service.	39	43	OI	3.781
Develop teacher-produced materials designed to help pupils perceive the career implications of the subject matter taught.	40	13	CU	3.656
Review and evaluate career education curricula designed and developed by other schools.	41	12	CU	3.645

TABLE 9 (cont)

Competency	Rank	Item #	Domain	Mean
Write specific career education performance objectives for curriculum units.	42	15	CU	3.633

Code for the six domains:

OI - Occupational Information
PH - Philosophy
CU - Curriculum
CO - Community
CD - Career Development
SD - Staff Development

TABLE 10

TEACHER CAREER EDUCATION COMPETENCIES
RANK ORDERED BY MEAN IMPORTANCE SCORE

Competency	Rank	Item #	Domain	Mean
Self-confidence	1	80	CD	4.889
Decision-making skills	2	72	CD	4.833
Work values	3	70	CD	4.810
Relate education to future work.	4	81	CD	4.800
Career awareness activities	5	73	CD	4.667
Problem solving and career maturity.	6	77	CD	4.667
Using hands-on experiences	7	16	CU	4.643
Use and production of teacher made career education materials.	8	13	CU	4.619
Students capabilities and limitations.	9	76	CD	4.583
Disseminate work information.	10	43	OI	4.571
Employment counseling	11	74	CD	4.571
Interdisciplinary experiences	12	22	CU	4.556
Reinforcing academic occupational skill relationships.	13	18	CU	4.500
Publicizing career education program.	14	89	CO	4.500
Relate subject matter to career education	15	62	SD	4.476
Participate in career education workshops.	16	61	SD	4.476

TABLE 10 (cont)

Competency	Rank	Item #	Domain	Mean
Job placement	17	44	OI	4.429
Skills - limitations	18	30	CU	4.429
Entry level skills	19	29	CU	4.429
Working with guidance staff	20	19	CU	4.429
Interdependence of occupations.	21	83	CD	4.400
Interdisciplinary cooperation	22	65	PH	4.400
Involving parents in career education	23	90	CO	4.350
Stereotypes	24	71	CD	4.333
Using community resources	25	87	CO	4.333
Writing of general career education objectives.	26	14	CU	4.300
Work permit information	27	42	OI	4.286
Writing of specific career education objectives	28	15	CU	4.286
Use of commercial career education materials	29	11	CU	4.286
Provide for easy transition for students	30	84	CD	4.286
Job seeking skills	31	75	CD	4.280
Use role models	32	92	CO	4.222
Basic skills	33	79	CD	4.222
Obtain materials school resource center	34	24	CD	4.200

TABLE 10 (cont)

Competency	Rank	Item #	Domain	Mean
Role models	35	26	CU	4.200
Explain career education to students	36	63	PH	4.200
Interpersonal skills	37	58	SD	4.200
Expand work experience	38	59	SD	4.143
Career education field trips	39	88	CO	4.111
Describe career education program and state goals to others	40	64	PH	4.100
Developing a program within the community to improve career education	41	91	CO	4.083
Social interactions	42	82	CD	4.000
Relate academics to future work	43	52	OI	4.000
Expose students to clusters	44	25	CD	4.000
Classroom research	45	23	CU	4.000
Dealing with task analysis and occupational requirements	46	21	CU	4.000
Developing facility modifications	47	17	CU	3.905
Using career education materials developed by other schools	48	12	CU	3.857
Cooperative programs and internships	49	96	CO	3.857
Non-threatening work experiences	50	85	CD	3.857

TABLE 10 (cont)

Competency	Rank	Item #	Domain	Mean
Monitor students on job	51	94	CO	3.857
Collect employer data	52	41	OI	3.800
Bring career representatives into school	53	95	CO	3.750
Evaluating by occupational standards	54	20	CU	3.750
Career maturity tests	55	69	CD	3.750
Basic skills identification	56	39	OI	3.667
Information from manpower sources	57	27	CU	3.600
Vocational education information	58	40	OI	3.462
Identify employment requirements	59	54	OI	3.200
Direct students in getting information	60	53	OI	3.111
Separate exploratory courses	61	28	CU	2.800

Code for the six domains:

OI - Occupational Information
PH - Philosophy
CU - Curriculum
CO - Community
CD - Career development
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TABLE 11

DOMAIN PLACEMENT OF THE TOP TEN COMPETENCIES FOR EACH PERSONNEL GROUP

Domain	Personnel Group				
	Teachers	Coordinators	Counselors	Administrators	Totals
Curriculum Development	2	0	3	2	7
Career Development	7	2	5	0	14
Occupational Information	1	1	1	0	3
Philosophy	0	1	0	2	3
Staff Development	0	3	1	1	5
Community-Related Activities	0	3	0	5	8
Totals	10	10	10	10	40

development of the staff. Since the coordinator is responsible for the day-to-day management of the career education program, such roles as those cited in these statements are to be expected.

The counselors, like the teachers, placed the greatest emphasis on career development. Surprisingly, however, they did not give this domain as high an emphasis as did the teachers. It is interesting to note also that the counselors have expressed a great concern for curriculum development, even though they are not directly responsible for its implementation in the classroom.

The administrators placed the greatest emphasis on those aspects of career education that bring together the various aspects of the school community. This may be a result of a concerted effort in recent years to involve all facets of the community in the educational decision-making process, and the administrators may perceive career education as the vehicle that will achieve these ends. Another possibility is that the administrator, increasingly concerned with the cost of educational programs, is interested in maximizing the use of community resources to keep the school-related costs of career education at a lower level.

Mean Domain Importance Scores

All scores for each domain within each personnel

level were then analyzed to compute a mean domain score for each category and personnel group. Table 12 provides the mean scores, as well as the ranking of each domain within the personnel group.

To provide a more graphic display of the internal relationships of the domain scores to each other for the four groups, Table 13 has been developed, which presents a curve for each group. Table 14 superimposes these curves over each other, so that trends and comparisons may be made more readily between personnel groups. Although relative comparisons between groups may be made, the range is extremely small (3.75-4.25). However, trends do appear and the researchers believe that greater significance would have been reached if the sample size had been larger. Within these limitations, it is interesting to note the following observations.

For the Teacher category, the occupational information domain is substantially lower than the other categories. All other domains are consistently high and similar in rating. The career development domain received the highest rating.

For the Administrators, the philosophy domain received the highest rating. This is the only group of the four personnel categories that did not rate career development as the highest domain. A high rating for philosophy

TABLE 12

MEAN DOMAIN SCORES FOR EACH PERSONNEL GROUP

Domain	Personnel Level							
	Teachers		Coordinators		Counselors		Administrators	
	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank
Curriculum Development	4.24	4	4.20	5	4.06	2	4.09	5
Career Development	4.38	1	4.46	1	4.26	1	4.18	3.5
Occupational Information	3.83	6	4.16	6	3.99	3	3.99	6
Philosophy	4.25	3	4.35	4	3.94	5	4.43	1
Staff Development	4.27	2	4.36	3	3.92	6	4.18	3.5
Community-Related Activities	4.17	5	4.39	2	3.96	4	4.35	2

Table 13

Mean Domain Scores for Each Personnel Group

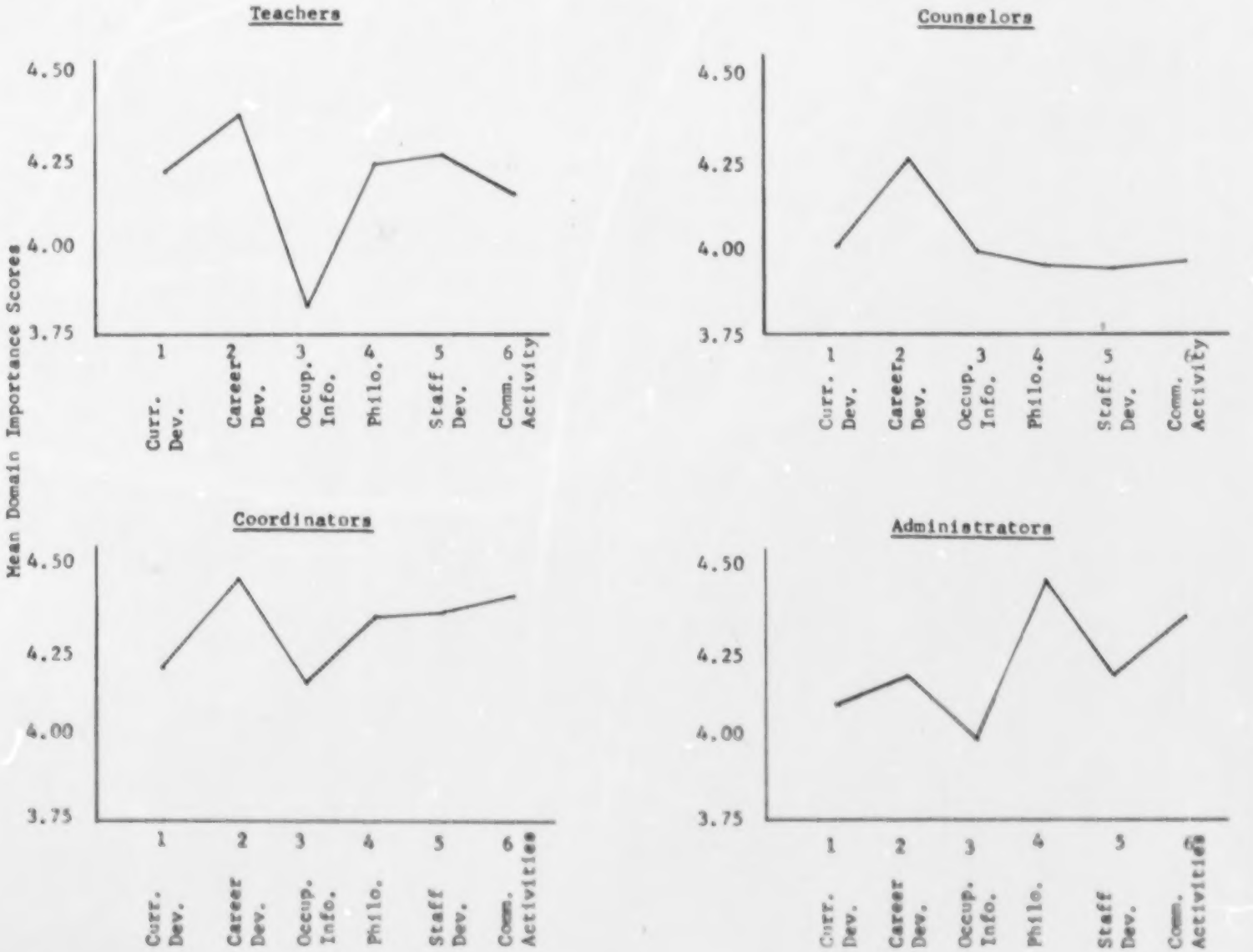

Table 14
Mean Domain Scores for All Personnel Groups

by the administrators is logically quite consistent with their roles. As the key decision-makers and policy makers, they must seek to set each program within the framework of the school system and ensure its philosophical compatability with other programs. As such, the high rating for the philosophy category is predictable. It should be noted that this group also rated the community-related activities domain highly. This is similarly consistent with recent trends to involve all aspects of the community in the educational decision-making process. It may be a result also of community pressure to become more involved in educational issues, both fiscally and programmatically. One may conjecture also that the present fiscal crises in education will require more extensive use of community resources, and the administrators may perceive career education as a vehicle to meet this goal.

The Coordinators gave career development the highest domain score. However, they consistently rated all six categories quite high. The profile of the Coordinators' responses most closely matches those of the teachers. As with the teachers, the category of occupational information was given the lowest rating. In general, this group tended to give the highest mean scores to every category across the board. This may be a function of the fact that coordinators are responsible for the day-to-day operation of their

career education programs, and are therefore most concerned that all components are well executed.

Counselors have traditionally had the role of assisting youth with their career development. Therefore, it was to be expected that they would give the career development domain the highest mean score. This was indeed the case. It is interesting to note, however, that the Counselors consistently rated every other category lower than any other personnel group, with the exception of occupational information. They did rate this category very low, but not quite as low as did the teachers. A first impression is that it is surprising that the counselors rated domains other than career development so low, since counselors typically are very supportive of the career education movement. Upon further reflection, however, one may reason that the counselors perceive career education to be a counseling movement to implement career development, more than a programmatic thrust for all areas of the school. If this were the case, then these other domains would be expected to receive a low rating, since the essential phase of career education is career development, to be assisted and developed primarily by the counseling staff.

When analyzing the data again from the perspective of each domain, rather than for each personnel group, other patterns emerge. Curriculum development is rated moderately

high by all groups, within a total range of .18. Teachers and coordinators rated this domain higher than did counselors and administrators. This was to be expected, since the teachers and coordinators are responsible for the ongoing supervision and implementation of the curriculum.

Career development received the highest overall rating. Except for the administrators, it was the highest rating for each personnel group. This is consistent with the philosophy of career education as a developmental process, based upon career development theory. It is similarly consistent with research in recent years, and concern in public schools for human growth and development and the development of a healthy self-concept. Since career development theory is both related to and part of these theories, it is to be expected that this domain would receive the highest score and be most acceptable within ongoing educational programs and processes.

Occupational information was given the lowest rating by every group, with the exception of the guidance counselors. It is conjectured that this domain was not rated the lowest by the counselors since this competency area traditionally has been part of their role. This low emphasis on occupational information may be a reaction to an early emphasis on this domain by many implementing career education. It

may also be a reaction to the tremendous volume of career education commercial materials that emphasize this factor. Or, it may be part of a thrust away from basic and relatively low level cognitive aspects of career education that are framed within occupational information; and part of a general trend toward those activities, (e.g. role-playing, simulation, internships) that focus upon self-awareness and career awareness in a more developmental mode.

The philosophy domain is rated quite high by all groups, except the counselors. The administrators gave this domain the highest rating, as presented earlier. Philosophical debates and developments, in all likelihood, will continue to capture the attention of career educators for some time to come, as the concept and programs continue to develop and mature.

Much like the philosophy domain, the staff development domain was rated highly by all groups, with the exception of the counselors.

Community-related activities had the broadest range in terms of the mean domain score (.43). Coordinators and administrators rated this function highly. This is consistent with their roles in designing and coordinating this phase of a total career education program. The teachers rated this domain moderately, compared to their ratings for

other domains. This may be a reflection of their understanding of the need for community-related activities, but also of their personal difficulty in establishing and maintaining them within the limitations of a full-time teaching schedule. The counselors rated this domain lower than the other personnel groups.

Difference Scores

The same Likert-type scale was applied to the ratings for frequency of performance for each competency.

5 - daily
4 - frequently
3 - occasionally
2 - not performed
1 - performed by someone else

Participants were asked to indicate the frequency in which they performed each task in their present capacities, related to the implementation of their career education program. Participants also were given the option of marking "0", indicating they were not familiar with the competency under analysis.

The purpose of this set of questions was to seek a relationship between the importance attributed to a competency and the frequency of its implementation. High importance but low frequency would indicate dissonance regarding the emphasis given to an important objective. Conversely, low importance and high frequency would indicate

time wasted on relatively unimportant matters. In either case, the higher the "difference" score, the more attention would be required to resolve the discrepancy. This third variable of difference, therefore, was created for each competency by subtracting the frequency rating from the importance rating. Certain adjustments, however, were necessary which reduced the number of difference scores available for analysis. Frequency ratings 2, 3, 4, and 5 can be considered as ordinal rankings; but 0 (not familiar with the competency) and 1 (performed by someone else) are purely nominal classifications. Therefore, in generating difference scores, cases with ratings of 0 for importance, or 0 or 1 for frequency, were omitted.

The creation of this third variable does not imply any intrinsic meaning for a particular Difference Score, since the same numerical rankings for Importance and Frequency are not necessarily parallel. However, this is a valid distance metric and allows for the comparison of items to one another. It makes possible also the creation of an inventory of felt needs through a rank ordering of these Difference Scores.

Tables 15 through 18 list the competencies for each personnel group, ranked according to their difference scores. As in the importance rankings, Table 18 combines the results for the three groups of teachers.

TABLE 15

ADMINISTRATOR CAREER EDUCATION COMPETENCIES
RANK ORDERED BY MEAN DIFFERENCE SCORE

Competency	Rank	Item #	Domain	Mean
Establish the curriculum priorities within the school system to meet the overall philosophy and goals of the total career education program.	1	36	CU	.932
Identify roles of all school personnel, prepare job descriptions and employ personnel as appropriate to implement the career education program.	2	67	PH	.902
Recommend and establish school system policies for the career education program.	3	68	PH	.902
Design and administer an assessment system for measuring student growth in career maturity.	4	69	CD	.853
Obtain public commitment and cooperation of the Board of Education, teacher organizations, and community organizations for the career education program.	5	104	CO	.804
Offer in-service programs designed to provide staff with career education concepts, procedures and materials.	6	60	SD	.771

TABLE 15 (cont)

Competency	Rank	Item #	Domain	Mean
Expand your personal world of work experiences to promote a broader experiential base for teachers in implementing career education.	7	59	SD	.761
Identify and define the school's role in student placement and coordinate placement service.	8	44	OI	.750
Collect occupational data from employers to identify community needs.	9	41	OI	.724
Provide leadership for writing general career education program goals and objectives.	10	14	CU	.696
Involve the widest possible community participation in career education policy decision-making, and career education activities.	11	103	CO	.690
Bring together and coordinate the personnel, resources facilities and activities of the subsystems that exist within the district.	12	105	CO	.683
Set up and maintain an active file of student applications and/or exploratory job stations.	13	45	OI	.667
Describe the total career education program, stating goals to be achieved in the school district, and identifying your role within the program.	14	64	PH	.659

TABLE 15 (cont)

Competency	Rank	Item #	Domain	Mean
Utilize career education accountability models for program evaluation of the total curriculum, delivery system, and personnel.	15	38	CU	.643
Establish career education performance standards.	16	57	OI	.639
Interact with and expeditiously use community and human resources available for career education.	17	87	CO	.636
Establish a cooperative working relationship between the classroom teacher, the guidance counselors and occupational teachers.	18	102	CO	.632
Gather and disseminate information concerning career programs, new materials, workshops, etc. to other school staff.	19	47	OI	.629
Research and develop a plan for the implementation and evaluation of a curriculum that integrates career education into the school.	20	37	CU	.622
Organize, establish and evaluate career education instructional resource centers at various instructional levels.	21	46	OI	.618
Coordinate activities of guidance personnel, teachers and coordinators according to the career education module theories.	22	86	CD	.595

TABLE 15 (cont)

Competency	Rank	Item #	Domain	Mean
Plan and direct implementation of job promotion and supervision techniques for career education school personnel.	23	56	OI	.594
Publicize and promote career education activities and programs within the community.	24	24	CO	.556
Monitor students in field-based activities through on-site visitations, phone calls or mailings.	25	94	CO	.556
Coordinate a career development program implementing career development theory from the awareness to preparation stages.	26	78	CD	.535
Be knowledgeable concerning state and district curriculum goals for career education.	27	66	PH	.531
Develop special activities to meet unique needs of the students (eg: interviewing techniques, values clarification, etc.).	28	70	CD	.500
Provide a liaison between student, teacher, parents and community.	29	91	CO	.500
Research and disseminate information concerning current issues in the world of work, education, rehabilitation and community services to staff.	30	43	OI	.486
Design and develop facility modifications to optimize career learning environments.	31	17	CD	.425

TABLE 15 (cont)

Competency	Rank	Item #	Domain	Mean
Authorize teachers to produce materials designed to help pupils perceive the career implications of the subject matter taught; supervise and evaluate materials developed.	32	13	CU	.412
Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.	33	58	SD	.327
Explain the career education program to student, etal.	34	63	PH	.324
Review and evaluate career education curricula designed and developed by other school districts.	35	12	CU	.233
Identify and evaluate appropriate commercial materials designed to help students perceive the career implications of the subject matter taught. Purchase and distribute materials to appropriate personnel.	36	11	CU	.081

The lower the Difference Number, the greater satisfaction is shown by the group regarding the Importance-Frequency relationship of the competency in question.

Code for the six domains:

OI - Occupational Information
PH - Philosophy
CU - Curriculum
CO - Community
CD - Career Development
SD - Staff Development

TABLE 16

COORDINATOR CAREER EDUCATION COMPETENCIES
RANK ORDERED BY MEAN DIFFERENCE SCORE

Competency	Rank	Item #	Domain	Mean
Set-up and conduct career education in-service professional development workshops for the faculty in your school district.	1	60	SD	.967
Expand your personal world of work experiences to promote a broader experiential base for teachers in implementing career education.	2	59	SD	.875
Conduct data-gathering assessments (surveys, etc.) for such information as manpower data, placement opportunities, student success, student satisfaction, etc.	3	48	CO	.826
Help parents understand and encourage the career development process as it relates to their children by involving them in career education plans, activities and events.	4	90	CO	.781
Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.	5	58	SD	.758
Research and disseminate information concerning current issues of the world of work, education, rehabilitation and community services.	6	43	OI	.741

TABLE 16 (cont)

Competency	Rank	Item #	Domain	Mean
Develop and coordinate experiences which will avoid occupational stereotypes including glamorous occupations and sex-role stereotypes.	7	71	CD	.733
Foster a climate in which teachers look for ways to cooperate with other disciplines in providing broader experiences for students.	8	64	PH	.733
Participate in career education in-service training.	9	61	SD	.727
Monitor the progress of field-based students through on-site visitations.	10	94	CO	.714
Provide teachers with instruction in the use of media and materials designed to be used in career education, including self-directed exploratory programs.	11	50	OI	.700
Identify, evaluate and use career education evaluation instruments for courses, program and instructional materials.	12	31	CU	.667
Establish and maintain working relationships with local business, industry and labor as well as community personnel in developing and improving the career education program.	13	91	CO	.667
Identify the technical competencies and basic skills needed for entry into occupations and describe occupational standards of performance.	14	39	OI	.667

TABLE 16 (cont)

Competency	Rank	Item #	Domain	Mean
Write specific career education performance objectives for curriculum units.	15	15	CU	.667
Develop and maintain a resource file of personnel in the community interested in participating in the career education program. Provide a list of the most appropriate individuals for each teacher to meet his/her objectives.	16	93	CO	.643
Set up and maintain an active file of students' applications and/or exploratory job stations.	17	45	OI	.640
Place students in paid or unpaid work experiences, take job orders, process applications, etc.	18	44	OI	.640
Coordinate all contacts and follow-ups of community personnel.	19	100	CO	.633
Gather and disseminate information concerning work permit procedures, child labor laws, provisions of the Industrial Welfare Commission Orders, and the Fair Labor Standards Act and other statutes and regulations governing employment of students.	20	12	OI	.630
Help school staff infuse career education into the school program and direct schoolwide career education activities.	21	49	OI	.621

TABLE 16 (cont)

Competency	Rank	Item #	Domain	Mean
Develop a career education information services to gather, disseminate, and evaluate occupational information.	22	46	OI	.600
Identify, interact with and expeditiously use community and human resources available to enrich the career education program.	23	87	CO	.594
Acquaint students with the career education information area located within the school and assist them in locating and using occupational education material and information.	24	40	OI	.583
Coordinate and make available the instructional services of the school system to all personnel.	25	55	OI	.565
Involve volunteer helpers in the career education process.	26	99	CO	.536
Describe the total career education program, stating the goals within your school district identifying your role and stating goals of the state departments of education.	27	65	PH	.533
Gather and disseminate information concerning career education programs, events, new materials, workshops, etc. to other school staff.	28	47	OI	.517
Plan and coordinate special programs of instruction to provide career guidance, career experiences, at the awareness, exploration and preparation levels, and career information.	29	78	CD	.516

TABLE 16 (cont)

Competency	Rank	Item #	Domain	Mean
Review and evaluate career education curricula designed and developed by other schools.	30	12	CU	.515
Call on previous or potential work environments to promote jobs, job stations, potential internships or cooperative work projects.	31	97	CO	.481
Explain the career education program to students, etal.	32	63	PH	.467
Identify and use appropriate measuring devices for students to use in assessing their interests, attitudes, and aptitudes as they relate to future career decisions.	33	69	CD	.455
Coordinate the development of teacher-produced materials designed to help pupils perceive the career implications of the subject matter taught.	34	13	CU	.444
Demonstrate career guidance techniques such as constructing and using rating scales, using role playing, constructing job ladders and lattices and interviewing techniques.	35	51	OI	.444
Help students develop, clarify, and assimilate personally meaningful sets of work values.	36	70	CD	.429
Serve as a resource to students, teachers, and counselors for career-related matters and materials.	37	98	CO	.394

TABLE 16 (cont)

Competency	Rank	Item #	Domain	Mean
Counsel students concerning career goals, educational requirements for employment in these areas, availability of jobs, work conditions, etc.	38	74	CD	.381
Provide experiences to broaden each student's range of career awareness.	39	73	CD	.346
Coordinate the development of general career education program objectives.	40	14	CU	.344
Publicize and promote career education activities within the school and the community.	41	89	CO	.324
Identify, evaluate and provide appropriate commercial materials for use by the teacher; designed to help students perceive the career implications of the subject matter taught.	42	11	CU	.290
Help students acquire and reinforce decision-making and planning skills.	43	72	CD	.250

Code for the six domains:

OI - Occupational Information
PH - Philosophy
CU - Curriculum
CO - Community
CD - Career Development
SD - Staff Development

TABLE 17

COUNSELOR CAREER EDUCATION COMPETENCIES
RANK ORDERED BY MEAN DIFFERENCE SCORE

Competency	Rank	Item #	Domain	Mean
Participate in career education in-service training.	1	61	SD	1.038
Identify the occupational composition of the community and plan and implement a program of school-community relations.	2	33	CU	1.000
Infuse affective career education concepts into the curriculum.	3	34	CU	1.000
Plan and conduct career education in-service workshops.	4	60	SD	1.000
Provide teachers with instruction in the use of media and materials designed to be used in career education including self-directed exploratory programs.	5	59	SD	1.000
Identify, interest with and expeditiously use community and human resources and services to enrich the career education program.	6	87	CO	.867
Describe the total career education program, stating the goals within your school district, identifying your role and stating goals of the state department of education.	7	64	PH	.857
Assist in writing general career education program objectives.	8	14	CU	.852

TABLE 17 (cont)

Competency	Rank	Item #	Domain	Mean
Help the classroom teachers implement career education in the classroom.	9	49	OI	.846
Develop and design facility modification to optimize career learning environments such as career resource centers.	10	17	CU	.826
Write and administer questionnaires and conduct interviews for both preparation and follow-up field trips related to career education.	11	101	CO	.813
Demonstrate guidance techniques such as constructing and using rating scales, using role playing, constructing job ladders and lattices, and interviewing techniques.	12	51	OI	.808
Implement career education concepts within the home and family structure.	13	90	CD	.808
Conduct data-gathering assessments (surveys, etc.) for such information as manpower data, placement opportunities, student success, student satisfaction, etc.	14	48	OI	.800
Research and compile lists of resource people within the community and school to enrich the career education program.	15	93	CO	.792
Gather and disseminate information concerning career education programs, events, new materials, workshops, etc. to other school staff.	16	47	OI	.778

TABLE 17 (cont)

Competency	Rank	Item #	Domain	Mean
Expand your personal world of work experiences to promote a broader experiential base for teachers in implementing career education.	17	59	SD	.778
Develop experiences which will avoid occupational stereotypes and expose students to atypical and non-glamour occupations.	18	71	CD	.733
Acquaint students with career education information areas located within the school and assist them in locating and using occupational education materials and information.	19	40	OI	.731
Write specific career education performance objectives for curriculum units.	20	15	CU	.704
Publicize and promote career education program activities within community and school.	21	88	CO	.690
Identify, evaluate and use appropriate commercial materials designed to help students perceive the career implications of the subject matter.	22	11	CU	.655
Identify technical competencies and basic skills needed for entry into occupations and describe occupational standards of performance.	23	39	OI	.654
Develop a career education resource center including occupational and education materials, resource persons, manpower data, assessment instruments, etc.	24	46	OI	.652

TABLE 17 (cont)

Competency	Rank	Item #	Domain	Mean
Monitor student field-based activities through on-site visitations.	25	94	CO	.647
Explain the career education program to students, etal.	26	63	PH	.640
Provide leadership in career testing.	27	32	CU	.633
Integrate academic and vocational skill relationships into the curriculum through activities center, units of instruction and/or programs of career guidance.	28	48	CU	.609
Increase your interpersonal skills in working with a broad spectrum of individuals both within the school and throughout the community.	29	58	SD	.607
Serve as a liaison between the school and the business-industry-labor, community and parent organizations.	30	91	CO	.600
Help students acquire job-seeking, job getting and keeping skills within a career guidance program.	31	75	CD	.593
Participate in the job placement process.	32	44	CU	.571
Research and disseminate information concerning current issues in the world of work, education, rehabilitation and community services.	33	43	OI	.556

TABLE 17 (cont)

Competency	Rank	Item #	Domain	Mean
Set up and maintain an active file of student applications and/or exploratory job stations.	34	45	OI	.526
Help pupils develop, clarify and assimilate personally meaningful sets of work values.	35	70	CD	.500
Counsel students concerning career goals, education requirements for employment in these areas, availability of jobs, work conditions, etc.	36	74	CD	.484
Identify and use appropriate measuring devices for students to use in assessing their interests, attitudes, and aptitudes as they relate to future career decisions.	37	69	CD	.452
Review and evaluate career education curricula designed and developed by other schools.	38	12	CU	.448
Develop teacher-produced materials designed to help pupils perceive the career implications of the subject matter.	39	13	CU	.423
Provide experiences to broaden the students' range of career and self-awareness.	40	73	CD	.345
Help students in the total career development process, including the making and implementation of career decisions.	41	72	CD	.290

TABLE 17 (cont)

Competency	Rank	Item #	Domain	Mean
Maintain a library of up-to-date occupational information and placement opportunities (both educational and occupational).	42	35	CU	.276

Code for the six domains:

OI - Occupational Information
PH - Philosophy
CU - Curriculum
CO - Community
CD - Career Development
SD - Staff Development

TABLE 18

TEACHER CAREER EDUCATION COMPETENCIES
RANK ORDERED BY MEAN DIFFERENCE SCORE

Competency	Rank	Item #	Domain	Mean
Job placement	1	44	OI	2.000
Obtain materials for school resource center.	2	24	CU	1.250
Work permit information	3	42	OI	1.200
Disseminate work information	4	43	OI	1.167
Skills-limitations	5	30	CU	1.143
Writing of general career education objectives.	6	14	CU	1.111
Writing of specific career educational objectives.	7	15	CU	1.105
Publicize career education program.	8	89	CO	1.091
Working with guidance staff.	9	19	CU	1.053
Participate in career education workshops.	10	61	SD	1.050
Expand work experiences	11	59	SD	.950
Career maturity test	12	69	CD	.938
Involve parents in career education.	13	90	CO	.900
Career education information area	14	40	OI	.889
Using community resources	15	87	CO	.889
Career education field trips	16	88	CO	.875

TABLE 18 (cont)

Competency	Rank	Item #	Domain	Mean
Classroom research	17	23	CU	.875
Relate subject matter to career education.	18	62	SD	.857
Employment counseling	19	74	CD	.833
Using career education materials developed by other schools.	20	12	CU	.800
Cooperative programs, internships	21	96	CO	.800
Developing a program within community to improve career education.	22	91	CO	.778
Interdisciplinary cooperation	23	65	PH	.750
Monitor students on the job.	24	94	CO	.750
Reinforce academic-occupational skill relationships.	25	18	CU	.750
Basic skills identification	26	39	OI	.750
Bring career education representatives into school.	27	95	CO	.750
Provide easy transition for students.	28	84	CD	.714
Developing facility modifications.	29	17	CU	.700
Use of commercial career education materials.	30	11	CU	.667
Use and production of teacher made career education materials	31	13	CU	.667

TABLE 18 (cont)

Competency	Rank	Item #	Domain	Mean
Interdisciplinary experiences	32	22	CU	.667
Explain career education to students.	33	63	PH	.650
Interpersonal skills	34	58	SD	.650
Describe career education program and state goals to others	35	64	PH	.632
Direct students in getting information	36	53	OI	.625
Relate education to future work	37	81	CD	.600
Job seeking skills	38	75	CD	.583
Instructional level skills	39	29	CU	.571
Career awareness activities	40	73	CD	.556
Dealing with task analysis and occupational requirements	41	21	CU	.545
Evaluating by occupational standards	42	20	CU	.545
Use role models	43	92	CO	.533
Decision-making skills	44	72	CD	.500
Students capabilities and limitations.	45	76	CD	.500
Using hands-on experiences	46	16	CU	.500
Stereotypes	47	71	CD	.500
Non-threatening work experience	48	85	CD	.400
Interdependency of occupations	49	83	CD	.400

TABLE 18 (cont)

Competency	Rank	Item #	Domain	Mean
Problem solving and career maturity	50	77	CD	.400
Role models	51	26	CU	.400
Expose students to clusters	52	25	CU	.400
Work values	53	70	CD	.333
Collect employer data	54	41	OI	.333
Social interactions	55	82	CD	.250
Identify employment requirements.	56	54	OI	.250
Relate academics to future work	57	52	OI	.222
Self-confidence	58	80	CD	.111
Basic skills	59	79	CD	.111
Separate exploratory courses	60	28	CU	-.250
Information from manpower sources	61	27	CU	-.250

Code for the six domains:

OI - Occupational Information
PH - Philosophy
CU - Curriculum
CO - Community
CD - Career Development
SD - Staff Development

In analyzing competencies common to "some" personnel areas it was found that a number of competencies were determined as highly important by personnel. In responding to the frequency category, however, these respondent groups indicated uniformly that the tasks were performed by someone else.

Most of these important but seemingly unperformed competencies dealt with job placement, and monitoring the student on the job. Item 44 concerning job placement, as an example, was rated as important or critical by 70.6% of the Administrators; important or critical by 76% of the Coordinators; and important or critical by 69.7% of the Counselors. Yet all of these groups showed large numbers indicating that these competencies were performed by someone else (Administrators 39.2%, Coordinators 26.5% and Counselors 33.3%).

Similar results were found for item 48 dealing with conducting placement surveys and item 94 concerning monitoring students on the job.

Further investigation is warrented to determine which personnel are actually performing these tasks. Further analysis of the difference scores may be found in the latter paragraphs of the following Discriminant Analysis section of this report.

Discriminant Analysis

As previously described, competencies in these instruments were compared across the four personnel levels of teachers, counselors, coordinators, and administrators. Each group received an instrument containing 6 common categories, or domains, containing distinct sets of items with limited overlap. Table 19 provides the common items for each domain across all personnel levels.

TABLE 19

COMMON ITEMS FOR ALL PERSONNEL GROUPS

Item No.	Domain	Competency Topics
11	CD	Use of commercial career education materials
12	"	Using career education materials developed by other schools.
13	"	Use and production of teacher-made career education materials.
14	"	Writing general career education objectives.
58	SD	Interpersonal skills
59	"	Expanding work experience
63	PH	Explaining career education program to students
64	"	Stating goals of career education program and describing it to others.
69	CD	Career maturity tests
70	"	Work values
87	CO	Using community resources

Mean domain scores were then generated for each group and analyses were performed on both the individual competency level and the domain level for both importance and difference.

A question of validity arises when one attempts to compare groups on mean domain scores. Two questions may be asked: A) Would discrimination among groups be a function of real attitude differences, or of uneven sampling of domains for different groups? and B) Is it possible to make inferences from a comparison of groups who are responding to different sets of items?

Not only is an affirmative response suggested on theoretical grounds, it is supported from the discriminant analyses performed on both the items and the domains. The competency items appearing on each questionnaire are not intended as a sampling from the theoretically infinite pool of items available, if one examines classical test theory. Rather, they fully comprise the universe of competencies within the domain of career education, based upon the analysis of existing literature and job descriptions to date. Each participant was asked to respond only to those additional competencies required for the implementation of career education. Assessment was intended only for the competencies that specifically involved the implementation of career education programs. The tendency of competencies to

fall into natural categories, and the composition of different item sets, is necessary to minimize possible contamination of results because of role differences in experience with different aspects of career education. Respondents were presented with competencies related to their professional roles. To have presented the same items to all subjects would have confounded the results by the differential closeness of the subjects to competencies. If a teacher does not rate philosophy as important as a superintendent, is it because the teacher is not concerned with the philosophical aspects of career education, or because it is not as critical to his/her role as for the superintendent? Only by fitting items to respondents on theoretical grounds can differences in domains be discovered.

Discrimant Analysis was performed on the Importance rating of items on the survey instruments, to determine numerically any significant differences among data being analyzed. It is common to find evaluative process or discriminant function performed on data. Finding significant differences in two out of three successive functions indicates reinforcement for theories stated above concerning <u>real</u> attitude differences among the groups, as well as inferences from comparisons of groups, responding to various <u>common items</u>. (Table 19)

Is there a significant difference in personnel groups towards importance items common to all groups? Function #1 resulted in .000 indicating a difference considerably less than .05. To determine the dimension causing this difference, one must first look at the Standardized Discriminant Function Coeffecients for each of the competencies common to all groups.

TABLE 20

DISCRIMINANT FUNCTION COEFFICIENT FOR COMMON ITEMS

Item No.	Discriminant Function Coefficient
11	0.24592
12	0.29503
13	-0.00109
14	0.22665
58	0.57146
59	-0.40089
63	-0.14310
64	-0.16033
69	0.44767
70	0.73961
87	0.48793

A high positive number indicates the largest separation of opinion among groups. A high negative number indicates agreement: little separation among different groups responding to the individual item. Therefore, a consensus of opinion may be noted concerning the importance of a particular item in question.

The nature of these separations are not defined through this functional analysis. A further analysis of the data must be performed to determine the causes of these differences. A high number in the first discriminant function coefficient indicates a polarization of opinion as to the importance of that specific common item. For example, Item 70 shows such a significantly high number (0.73961). This number is great enough to influence the "Centroids of Groups in Reduced Space" for this first discriminant analysis function. Centroids indicate group reactions to all common coeffieients.

Function 1 - Centroids of Groups in Reduced Space

Teachers	-1.19517
Guidance	0.25651
Coordinators	0.48322
Administrators	0.24359

In analyzing the Standardized Discriminant Function Coefficients for the common items, it may be observed that item 70, concerning work values, has the highest separation (0.73961). The Centroids of Groups in Reduced Space clearly indicate that the two groups with the most separation are Teachers and Coordinators. It may be interpreted, therefore, that item 70, relating to work values, most strongly separate the teachers from the coordinators. The significant difference of Function I performed in the discriminant analysis of all common items was 0.000. This indicates a

difference on opinions of importance on the items in the common list by all groups to be so high that the computer needed to extend to more decimal places to print a number small enough to be presented. Since a significant difference is accepted as any number less than .05, it may be concluded that the differences on Importance of Common Items Among Groups is indeed significant. This initial difference may be related to differences in roles, and perception of role responsibilities concerning common items involved in this study.

The finding of a second significant difference (0.029) on Function II indicates that there may be real differences in attitude towards common items by groups, other than differences related to group perception of roles.

The first level of difference (Function I) sharply separates teachers from coordinators on a dimension of system orientation. Negative scores indicate a stronger concern with student attitudes and personal professional development, while positive scores show greater orientation toward integrating the program into the school and larger community.

The second discriminant function (see Tables 21 and 22) indicates a curriculum dimension in the ratings, and reveals distinct differences in profiles for guidance personnel and teachers. While teachers are concerned with the materials

and resources available for their use, counselors focus more on the students for whom the materials are to be used.

TABLE 21

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS FOR COMMON ITEMS: FUNCTIONS I, II, AND III

Item #	Discriminant Function Coefficient		
	Function I	Function II	Function III
11	0.24392	-0.28490	-0.34788
12	0.29503	0.35127	-0.34234
13	-0.00109	0.90333	-0.11542
14	0.22665	-0.16120	0.48173
58	0.57146	-0.10218	-0.25158
59	-0.40089	0.03090	-0.20566
63	-0.14310	-0.36416	0.07911
64	-0.16033	0.23681	0.02775
69	0.44767	-0.20707	-0.42654
70	0.73961	0.00207	-0.08043
87	0.47893	0.23689	0.32098

When the vector of common item scores is reduced to a series of individual scores and univariate F tests are applied, significant differences among groups are discovered on four items. (see Table 23) The analyses of items 69 and 87 restate the system orientation of the first discriminant function which separated teachers from coordinators. The coordinators are concerned with program assessment and its integration into the community. Item 13

TABLE 22

CENTROIDS OF GROUPS IN REDUCED SPACE
FOR FUNCTIONS I, II, AND III

Personnel Group	Function Centroids		
	Function I	Function II	Function III
Teachers	-1.19517	0.43489	-0.01297
Counselors	-0.25651	-0.81670	-0.27688
Coordinators	0.48322	0.31309	-0.40756
Administrators	0.24359	-0.02137	0.45371

TABLE 23

SELECTED COMMON ITEM SCORES:
ANALYSES OF VARIANCE

Item #	Sum of Squares	Degrees of Freedom	Mean of Squares	F Ratio	Probability P
11	Between 5.296 Within 58.251	3 114	1.765 .511	3.454	.025
13	Between 8.749 Within 87.233	3 115	2.916 .759	3.842	.025
69	Between 8.400 Within 85.966	3 116	2.800 .741	3.779	.025
87	Between 6.345 Within 45.446	3 116	2.115 .392	5.395	.005

(teacher made tests) restates the second discriminant function that places counselors and teachers at opposite ends of the curriculum continuum. Finally, administrators rate the use of commercial materials (item 11) less important than the other three groups. This may be due to their concerns with budgetary constraints.

Discriminant Analysis was performed also on the Mean Domain Scores. The Domain scores measured opinions of importance for Curriculum Development, Occupational Information, Staff Development, Philosophy, Career Development and Community-Related items. This analysis revealed two significant dimensions of discrimination which parallel, and reinforce, but are not identical to the functions derived from the analysis of common items. (see Tables 24 and 25). Note that both functions I and II show significant differences in that the resulting computations fall below .05. The first Function contrasts counselors (-0.48777) and teachers (-0.37665) with administrators (0.55201). The former are less concerned with describing, justifying, or promoting the career education program within the larger community than are the administrators. They place more emphasis on the skills associated with career development. This is consistent with the graphs that shows all groups rating the career development domain highest, except for the administrators. (see Tables 13 and 14). The second Function highlights the dimension which separates teachers (0.61415) from counselors (-0.43463). While teachers focus on professional and school-related concerns, counselors place more importance on orienting students toward the world of work.

The second dimension closely parallels the factors

TABLE 24

MEAN DOMAIN SCORES
STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

Domain	Function		
	Function I	Function II	Function III
Curriculum Development	-0.15714	0.45491	0.11620
Occupational Information	-0.09177	-1.08082	-0.81921
Staff Development	-1.01274	0.73723	-0.17669
Philosophy	1.12236	-0.31813	-0.03402
Career Development	-0.69817	0.42110	-0.15218
Community Activ.	1.01193	0.43816	-0.05802

TABLE 25

MEAN DOMAIN SCORES
CENTROIDS OF GROUPS IN REDUCED SPACE

Personnel Group	Centroids		
	Function I	Function II	Function III
Teachers	-0.37665	0.61415	0.20486
Counselors	-0.48777	-0.43463	0.07707
Coordinators	-0.12190	0.12903	-0.29055
Administrators	0.55201	-0.05753	0.05934

revealed in the analysis of common items. The teacher's attention is claimed by the day-to-day demands of the classroom, making it difficult for them to view their activity in a larger perspective, or even to connect it with the concrete employment needs of their students. When individual domain scores are subjected to unvariate analysis, no significant differences can be detected among the groups. The fact that parallel discriminant functions, particularly on the second dimension, are derived from the two analyses indicates that no violence has been done to the data by this transformation, and that groups have been compared usefully on a level higher than that of simple item analysis and the domain analysis, in terms that are meaningful and conclusive.

When discriminant analyses were performed on difference scores, on either common items or domain level, no significant multivariate (or univariate) distinction was found among the groups.

Although no significant differences were found when comparing data on mean domain difference scores, certain consistencies appeared. The high numbers indicated a greater separation between what was felt to be important and what was actually performed on the job. Table 26 presents the Mean Domain Difference Scores.

TABLE 26

MEAN DOMAIN DIFFERENCE SCORES

Domain	Personnel Group					
	Guidance	Coordinators	Administrators	Teachers	Total	
Curriculum Development	0.6353	0.5029*	0.5730	0.7792+	0.6018	
Occupational Information	0.6913	0.6172*	0.6175	0.7976+	0.6622	
Staff Development	0.7500	0.8186	0.5980*	0.8929+	0.7326	H
Philosophy	0.6515	0.5735*	0.6549	0.7302+	0.6456	
Career Development	0.4781	0.4636*	0.5229+	0.4788	0.4911	L
Community Activities	0.7491	0.5639*	0.6261	0.7815+	0.6639	

*Lowest number assigned to domain
+Highest number assigned to domain
H = Highest Total Score assigned to domain
L = Lowest Total Score assigned to domain

Teachers consistently revealed the highest mean domain difference scores for each domain surveyed. This indicates that teachers rated the highest difference between importance and frequency and therefore, show the greatest amount of dissatisfaction (and the highest level of frustration) with their work in the implementation of career education programs. They perceive discrepencies between what they believe to be important and what they are doing in their programs. There are several possible reasons for this dis-

satisfaction. The lack of control over program development on the teacher level may be the most obvious one and worthy of further consideration.

The Coordinators tend to show the least discrepancy, or difference scores. This may be due to the fact that they are in a coordination-management role and are exercising some control over their programs. Coordinators tend to be relatively new managers. Many may, for the very first time, be in a position to implement what they believe is important.

The highest difference scores on the domain level were found in the Staff Development domain, indicating the most controversy within that particular domain. The lowest appeared in the Career Development domain. Since most groups rated the Career Development Mean Domain Importance Scores highest among the domains, this difference indicates that personnel consistently use the competencies which they agree are most important.

SUMMARY

This study was designed both to develop and validate the competencies needed by school personnel for the implementation of career education. The initial competencies were developed from an intensive review of the literature, analysis of related competency studies, and an analysis of

job descriptions for personnel positions in career education. This synthesized list was then subjected to content validation procedures through a questionnaire submitted to individuals attending the 1976 Commissioners National Conference on Career Education. The results were analyzed by the personnel levels of teachers, counselors, coordinators, and administrators. For each personnel level, the competencies were divided into the six categories, or domains, of curriculum development, career development, staff development, philosophy, occupational information, and community-related activities.

The questionnaires asked each respondent to examine the competencies identified for that personnel level, and to rate each according to ite importance and its frequency of use. A Likert-type scale was used for each competency. In addition, the researchers established a third variable called Difference, which measured the difference between importance and frequency, by subtracting one from the other.

This report is divided into several major sections. The first section presents the competencies as they were initially developed, and then re-presents them, ranked according to their importance scores. From this section, the reader may determine the relative importance of the competencies as perceived by the questionnaire respondents.

The second section of this report presents importance scores for each of the six domains. The mean score for each domain was derived by using the aggregate of all the items in each domain. From these six mean domain scores for each personnel level, profiles and comparisons may be made on a group basis. These profiles have been developed and presented in both tabular and graphic form, and indicate a number of results. For example, all personnel groups, except the administrators, consider those competencies related to the career development domain to be of greatest importance. All personnel groups, except for the counselors, consider those competencies in the occupational information domain to be of the least importance. Other items worthy of note and further consideration regarding mean domain importance scores are presented within that section of the report.

The third major section of the report presents the difference scores. Difference is determined by subtracting the frequency score from the importance score. Thus, the higher the difference score, the greater the dissatisfaction with that particular competency. All the competencies are presented again by personnel level, ranked according to their difference scores. Thus, the reader may analyze these tables to ascertain those areas with the highest degree of dissonance.

The fourth major section of this report presents the result of a discrimant analysis that was conducted for common competencies (common to all personnel groups) and for domains regarding both the importance and difference variables. A number of statistically significant results were obtained in this section, and are presented.

The results of this study have lead the researchers to present these competencies with a degree of confidence that they indeed are useful, important, and needed for the implementation of career education programs. Career development is the most highly prized component of career education across all groups; and occupational information is the least valued ingredient. Differences among personnel groups and among domains within personnel groups warrant further staff development programs to reduce this cognitive dissonance.

This study may be of value to those designing staff development programs; employing personnel for career education programs; implementing career education policy; and supervising personnel in career education programs. As such, it should be treated as a beginning. By no means are these the final competencies from which career education personnel development programs should be based. They do provide, however, a base for current programs and a departure point for

future studies. The authors recommend the continuance of similar projects that will further this research in clarifying and specifying personnel roles for career education.

APPENDIX A

QUESTIONNAIRE FORMAT

CAREER EDUCATION COMPETENCY ANALYSIS

The purpose of this analysis is to synthesize and validate competencies needed by school system personnel to implement career education. This study is an outgrowth of reviews of the literature currently identifying the skills needed by career educators at various levels We would like information on the importance of each competency on the list and an indication of the frequency of actual use of each of the competencies. This study is being conducted by the Department of Business and Career Education at Boston University, under the auspices of the National Association for Career Education.

The following list represents a synthesis of competencies derived from prior research. Since your current career education activities are at this level we are asking for your help in validating this list. We appreciate your cooperation and thank you for taking the time necessary to carefully complete this questionnaire.

NOTE: I am filling out this statement of my own free will and I understand that my name will not be used in the final reporting of this data and that only group data will be reported. I understand that the final results of this study will be make available to me if I provide my name and address on the lines below:

NAME: _____

ADDRESS: _____

PLEASE RETURN THIS QUESTIONNAIRE TO THE NACE BOOTH or return it by mail to:

Joyce Malyn-Smith
Department of Business and Career Education
Boston University
765 Commonwealth Avenue Room 1510
Boston Massachusetts 02215

PLEASE COMPLETE THE FOLLOWING DEMOGRAPHIC DATA:

1. What is the scope of the career education program in which you are currently involved?

none	by myself	expanded guidance program	part of occ/vo ed.	K-12	5-9	6-12	9-12	higher ed.	business industry gov't.

2. In what region of the country are you currently employed?

northeast	south	middle atlantic	midwest	southwest	west

3. What is your job title?

teacher	guidance	work/study coop. coord	career ed coord.	occ/vo coord	career ed director	occ/vo ed director

asst. principal	principal	asst. Suptdent	superintendent	teacher educator	other (please indicate)

4. Your current degree status?

less than BA - BS	BA BS	BS+ BA+	MA MEd	MEd+	CAGS	CAGS+	EdD PhD

5. Year of most recent degree:

prior to 1960	60-64	65-69	70-72	73-76

6. Number of years of teaching experience:

0-2	3-5	6-10	11-15	16-20	20+

7. Number of years experience in business-industry-labor, civil service (full-time equivalent)

0-1	2	3	4	5	6-8	9-12	12+

8. How long have you personally been involved in implementing career education in your school district??

0-1 yrs 2 yrs 3 yrs 4 yrs 5 yrs 6-8 yrs 8+ yrs

DIRECTIONS: On the list which follows after each competency statement please CIRCLE the NUMBER of the written description which most closely matches your point of view. Note that we want you to rate competencies by importance and frequency of use and a column titled "not familiar with topic" has been provided.

IMPORTANCE
5. critical
4. important
3. somewhat important
2. of little importance
1. of no value

FREQUENCY
5. performed daily
4. performed regularly
3. performed on occasion
2. not performed
1. performed by someone else in program

CAREER EDUCATION COMPETENCIES NEEDED BY ADMINISTRATORS

CURRICULUM RELATED	critical 5	important 4	somewhat important 3	of little value 2	of no value 1	Not familiar with topic	performed daily 5	performed regularly 4	performed on occasion 3	NOT performed 2	performed by someone else in program 1
Establish the curriculum priorities within the school system to meet the overall philosophy and goals of the total career education program	5	4	3	2	1	NF	5	4	3	2	1
Provide leadership for writing general career education program goals and objectives	5	4	3	2	1	NF	5	4	3	2	1
Authorize teachers to produce materials designed to help pupils perceive the career implications of the subject matter taught; supervise and evaluate materials developed	5	4	3	2	1	NF	5	4	3	2	1
Identify and evaluate appropriate commercial materials designed to help students perceive the career implications of the subject matter taught Purchase and distribute materials to appropriate personnel	5	4	3	2	1	NF	5	4	3	2	1
Review and evaluate career education curricula designed and developed by other school districts	5	4	3	2	1	NF	5	4	3	2	1
Research and develop a plan for the implementation and evaluation of a curriculum that integrates career education into the school.	5	4	3	2	1	NF	5	4	3	2	1
Utilize career education accountability models for program evaluation of the total curriculum, delivery system, and personnel.	5	4	3	2	1	NF	5	4	3	2	1
Design and develop facility modifications to optimize career learning environments	5	4	3	2	1	NF	5	4	3	2	1

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